

The American Economy in 1942

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The first year of this war is now history. Few Americans perhaps will give its economic aspects more than a hasty, backward look as they lend attention to the more absorbing news being flashed from the fighting fronts. Yet if we are to benefit during 1943 from the lessons of the year just closed, it is essential that we analyze the year's significant economic trends.

In some ways, 1942 was one of the most momentous years in our economic annals. Since some features of our pre-war economy may be deemed to have gone with the bombs on Pearl Harbor, 1942 will stand forth to the historian as the first year of decisive transition from the pre-war economy to that of the war period and subsequently to that of the post-war era.

The year was replete with superlative achievements. New high records were the rule rather than the exception. Many customary and traditional ways of doing things were modified or abandoned. Altogether there were so many new developments that, by year-end, the economy was perhaps in a more fluid state than at any time since the Civil War or the period of westward expansion that followed.

Outstanding Features of the Year

The year opened with our armed forces on the defensive. By year-end, they were on the offensive. This transition was economically possible because of the accelerated program for raising and equipping our fighting forces and those of our Allies. The financial measure of this effort is the total of the Nation's outlay during the year for all war purposes—approx-

mately \$54 billion dollars. This sum was almost equal to the entire gross national product of 1933.²

This outpouring of funds was accompanied by progressive Government controls aimed at channeling manpower, materials, and industrial facilities into our rapidly growing armament industries. The prime economic development of 1942 was the manner and extent of this mobilization of the Nation's resources for war.

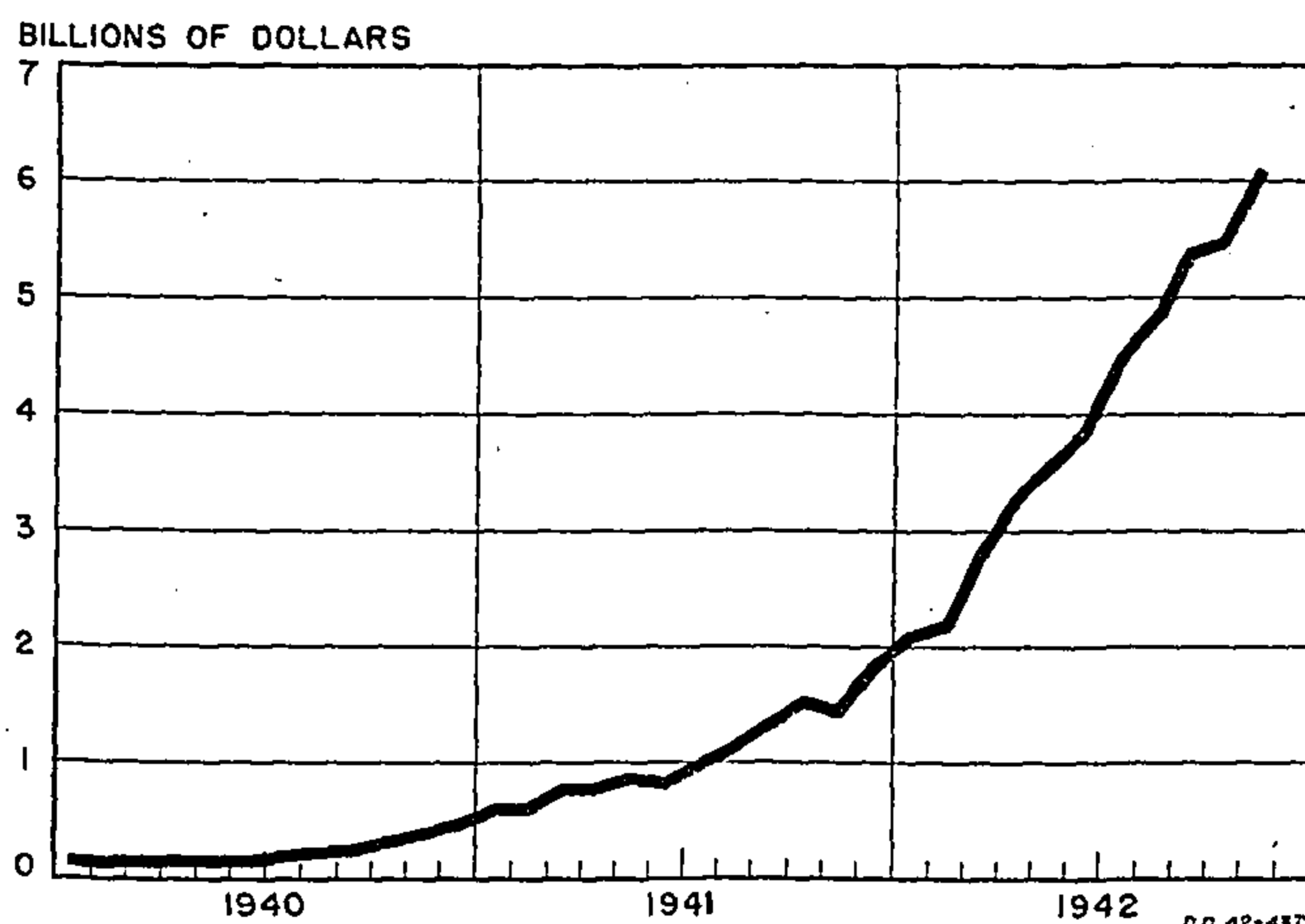
The response of the American economy to this war pressure was to lift its gross national product, measured in constant prices, by nearly 20 percent. The most significant single fact to be noted in reviewing the year is that this unprecedentedly large national output was achieved by bringing to bear a larger work force and a larger quantity of productive plant and equipment on a larger volume of raw materials—each factor being larger than ever before in the Nation's history. Industrial production rose 15 percent, manufacturing production 17 percent, while the physical volume of transportation was more than 25 percent above the preceding year. Thirteen percent more electric power was produced. All these impressive advances in physical output plus a slowly rising level of prices during the year were reflected in an expansion of approximately 25 percent in the national income.

The significance of the course of economic events in 1942 is to be found largely in the ways these output gains were achieved and in the policies, controls, and procedures required to attain this unprecedented mobilization of the Nation's economic potential.

The guidance of economic activity passed largely into Government hands. As the buyer of one-third of all goods and services produced, the Federal Government decided within broad limits what should be produced. As controller of the flow of basic materials and new productive equipment, it also determined what should not be produced. By its partial controls over prices, its power to allocate and ration commodities and basic public services such as transportation and communication, it also dominated distribution. By the year-end the basic policy-making powers over nearly all types of economic activity were being exercised by the Government. Actual conduct of economic operations remained, however, almost entirely in private hands.

Notwithstanding the extensive and intensive growth of Governmental controls, private enterprise continued to function in the usual manner for a year of prosperity. Aggregate corporate profits before taxes broke all existing records. After taxes they were only about 6.

Chart 1.—Federal Expenditures for War Activities



Source: Daily Statement of the U. S. Treasury.

¹ The writers gratefully acknowledge the contributions of the many individuals in the Division of Research and Statistics of the Bureau of Foreign and Domestic Commerce who have furnished statistical data for this review.

² Prices were, of course, very much lower in 1933 than in 1942.

percent below the 1941 all-time peak. Industrial disputes, although at low levels for a prosperous year, were by no means negligible. Not even vital war industries were free from their disrupting effects. Business failures declined to low levels. Although free open-market prices ceased to be the prime factor governing the distribution of many commodities, especially of those vital to the war effort, open-market wages continued very largely to govern the flow of available manpower into alternative industries.

The chief economic problems requiring solution were: (1) providing industry with the requisite manpower, materials, plant and equipment for producing the necessary munitions of war, (2) diverting goods and services from nonessential civilian uses into war uses, (3) providing for essential civilian needs, (4) distributing equitably among consumers certain increasingly scarce commodities, (5) financing war expenditures, and (6) the prevention of inflation.

The basic tasks of channeling manpower, materials, and productive facilities into war industries, of providing for essential civilian needs and of diverting goods and services from nonessential civilian consumption to war purposes, were achieved largely by priorities, limitation orders, and direct allocation. Apart from inductions by the Selective Service System, the flow of manpower into competing employments remained perhaps freest from control. Rationing was instituted on a limited but increasing scale as scarcities of some important consumer goods developed. As a result of this economic mobilization, approximately one-third of all goods and services produced during the year were diverted to war uses. Thus there remained for private business and consumer uses, only about six-tenths of all goods and services produced in 1942 compared with eight-tenths in 1941.

Federal Government expenditures in 1942 totaled about 60 billion dollars inclusive of Government corporations, of which 54 billions were for war purposes. The difficult fiscal problems confronting Congress and the Treasury were without precedent. The first tax legislation of this war, enacted October 20, 1942, provided only about 7 billion dollars of additional tax revenue in a full year of operation. It was generally recognized that this represented an insufficient addition to government revenue and that the new Congress would have to consider additional tax measures.

Federal expenditures for the year were covered by taxes only up to 30 percent. The remaining 70 percent was met by borrowing. This lifted the Federal funded debt 50 billion dollars to a new peak of 108 billions.

War expenditures generated a national income and a volume of income payments to individuals that exceeded all previous levels. At the same time consumer expenditures soared to new highs. Since these developments were accompanied by a decline in the volume of output of consumer goods, the stage was

thus set for inflation. During the opening months of the year, in fact, a strong rise was under way in both wholesale commodity prices and in the cost of living.

The imposition of the General Maximum Price Regulation in May effectively curtailed the upward movement of wholesale prices and slowed down the advance of living costs. Anti-inflation forces were still further strengthened by the Act of October 2, 1942, directing the President to stabilize "prices, wages and salaries affecting the cost of living" at around September 15 levels and by the Executive Order of October 3 establishing the Economic Stabilization Director as the supreme economic authority, subject only to the President himself. Although these moves definitely checked inflation, the struggle to hold prices down was unfortunately not permanently won. Administrative price controls were under attack and existing fiscal restraints were far from powerful enough to hold back prices by themselves.

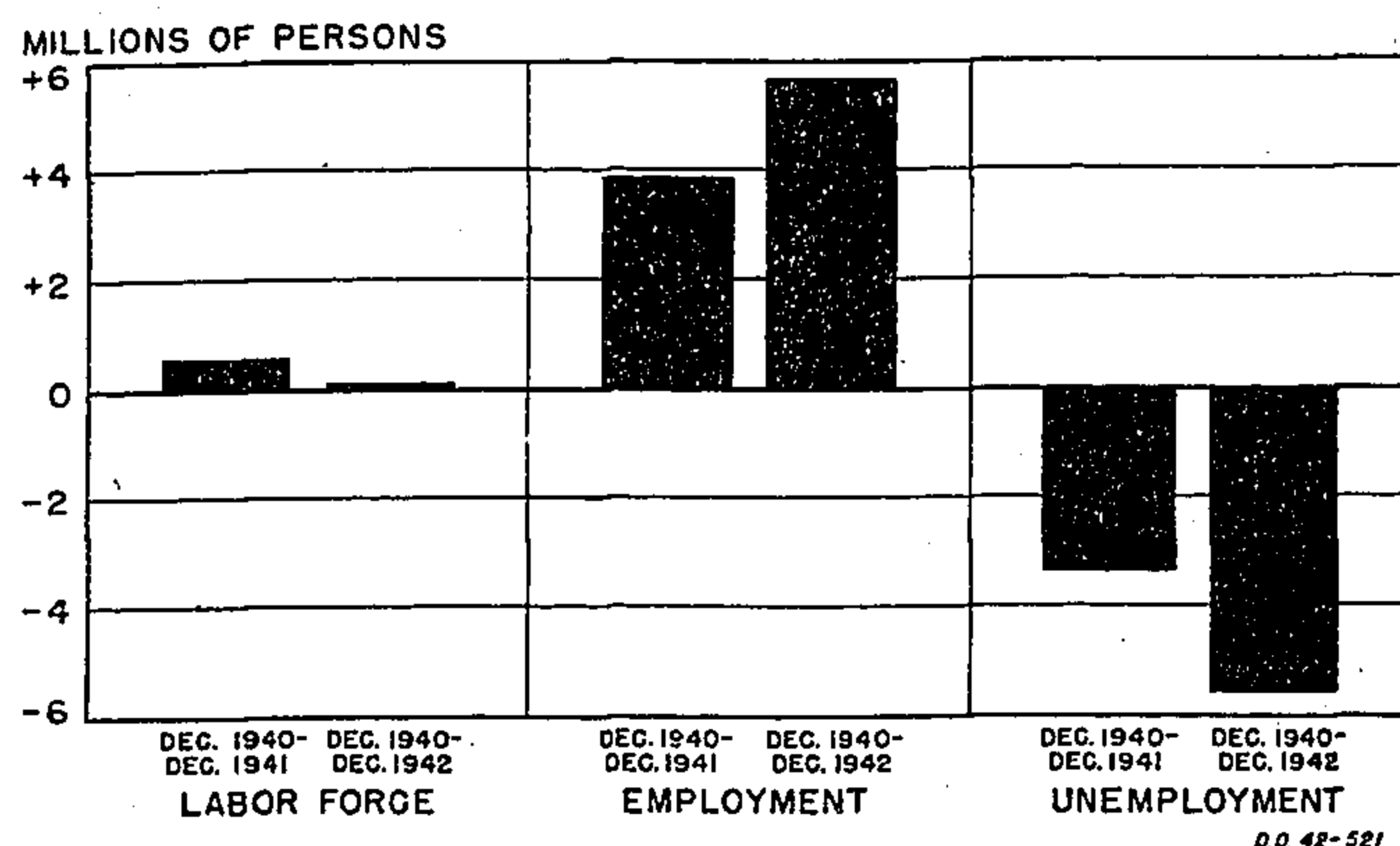
After paying taxes, consumers had large sums of purchasing power left which they could not spend for current consumption both because of growing scarcities of goods and because ceiling prices and rationing restricted competitive bidding for the supplies which were available. Under these circumstances, individual savings rose to extremely high levels.

Finally, the year's economic developments were of necessity deeply affected by events on the fighting fronts and by military decisions geared to the evolution of Allied war strategy. Japanese territorial gains in the Far East and the German submarine campaign against the Atlantic sea lanes caused, directly or indirectly, some profound changes in the quantities and types of materials available to our economy. The scarcity of cargo space for carrying civilian goods wrought marked changes in our foreign trade. The large-scale development of Lend-Lease began to affect almost every consumer. The raising and equipping of our armed forces had direct repercussions on civilian employment and on the types of goods that could be produced and distributed. Matters affecting both our civilian and our war economies, relating to Lend-Lease and economic warfare and hence to the economies of our Allies as well as ours, were increasingly worked out by joint boards and committees representing the United States and various other of the United Nations.

Under these circumstances, it was almost inevitable that economic developments of the year were characterized by trial-and-error procedures which involved doing entirely new things under pressure. The nature of these developments is reflected in greater detail in the discussion which follows.

Manpower

Men and women are the prime resource of any Nation. Their number and their capabilities both are vital. This was forcefully recalled to our attention during the past

Chart 2.—Changes in Estimated Civilian Labor Force¹

¹ Data do not include institutional population and persons in the armed forces.
Source: U. S. Department of Commerce.

year as the manpower scarcity developed more and more as the one problem that underlay all others. For—in a country of still untapped resources—shortages of materials, productive facilities, and other resources eventually resolve themselves into labor scarcity.

The manpower story of the year can be told simply. The civilian labor force remained approximately stationary if seasonal changes are ignored, as may be seen in table 1. The number of employed workers increased about 3,000,000 on a monthly average basis, while the the unemployed, similarly measured, decreased 3,000,000. The armed forces increased several millions. Their growth caused a constant drain on the civilian labor force which was made good largely by the recruiting of several millions of nonworkers into the labor

Table 1.—Estimated Civilian Labor Force

[Millions of persons]

Year and month	Civilian labor force ¹			Employment ¹									Unemployment		
	Total	Male	Female	Total	Nonagricultural			Agricultural			Total	Male	Female		
					Total	Male	Female	Total	Male	Female					
1940															
December.....	53.4	40.9	12.5	46.3	37.6	27.4	10.2	8.7	8.3	0.4	7.1	5.2	1.9		
1941															
December.....	54.0	40.2	13.8	50.2	41.9	29.8	12.1	8.3	7.8	0.5	3.8	2.6	1.2		
Average for year.....	54.4	41.1	13.3	48.8	39.4	28.7	10.7	9.4	8.5	.9	5.6	3.9	1.7		
1942															
January.....	53.2	40.0	13.2	48.9	40.7	29.3	11.4	8.2	7.7	0.5	4.3	3.0	1.3		
February.....	53.4	40.0	13.4	49.4	41.0	29.3	11.7	8.4	7.9	0.5	4.0	2.8	1.2		
March.....	54.5	40.0	14.5	50.9	42.0	29.5	12.5	8.9	8.1	0.8	3.6	2.4	1.2		
April.....	53.7	39.8	13.9	50.7	41.4	29.4	12.0	9.3	8.4	0.9	3.0	2.0	1.0		
May.....	54.2	40.0	14.2	51.6	41.4	29.6	11.8	10.2	8.8	1.4	2.6	1.6	1.0		
June.....	56.1	41.1	15.0	53.3	41.8	30.0	11.8	11.5	9.4	2.1	2.8	1.7	1.1		
July.....	56.8	41.6	15.2	54.0	42.3	30.2	12.1	11.7	9.7	2.0	2.8	1.7	1.1		
August.....	56.2	41.1	15.1	54.0	42.8	30.2	12.6	11.2	9.5	1.7	2.2	1.4	0.8		
September.....	54.1	39.2	14.9	52.4	42.2	29.6	12.6	10.2	8.6	1.6	1.7	1.0	0.7		
October.....	54.0	39.0	15.0	52.4	41.9	29.2	12.7	10.5	8.9	1.6	1.6	0.9	0.7		
November ²	54.5	38.5	16.0	52.8	43.0	29.1	13.9	9.8	8.4	1.4	1.7	1.0	0.7		
December ²	53.4	37.9	15.5	51.9	43.0	29.0	14.0	8.9	8.0	.9	1.5	.9	0.6		
Average for year.....	54.5	39.9	14.6	51.9	42.0	29.6	12.4	9.9	8.6	1.3	2.6	1.7	0.9		

¹ Data do not include institutional population and persons in the armed forces.
² Preliminary.

Source: U. S. Department of Commerce.

force and to a lesser extent by population growth (amounting to nearly 1,000,000 persons in the age groups of 14 years and above).

Most of the new additions to the civilian labor force were women. When the monthly average labor force in 1942 is compared with that of 1941, it is seen that the number of men dropped approximately 1,200,000 while the number of women rose 1,400,000. As would be expected, the decline in male workers was largely in the military ages between 20 and 34, inclusive, while most of the new women recruits in the labor force were apparently in the age groups from 35 to 54, inclusive.

Table 2.—Civilian Employment by Major Industrial Groups

[Millions of persons]

Group	Monthly average	
	1941	1942 ¹
Civilian employment, total.....	48.8	51.9
Nonagricultural.....	39.3	42.0
Employees in nonagricultural establishments.....	34.4	36.9
Manufacturing and mining.....	13.7	15.6
Construction.....	2.0	1.9
Transportation and public utilities.....	3.3	3.4
Trade, finance, service, and miscellaneous.....	11.1	10.9
Government (excluding armed forces).....	4.3	5.1
Self-employed, proprietors, domestics, etc.....	4.9	5.0
Agricultural.....	9.4	9.9

¹ Preliminary estimates.

Sources: Employees in nonagricultural establishments, U. S. Department of Labor; all other data, U. S. Department of Commerce.

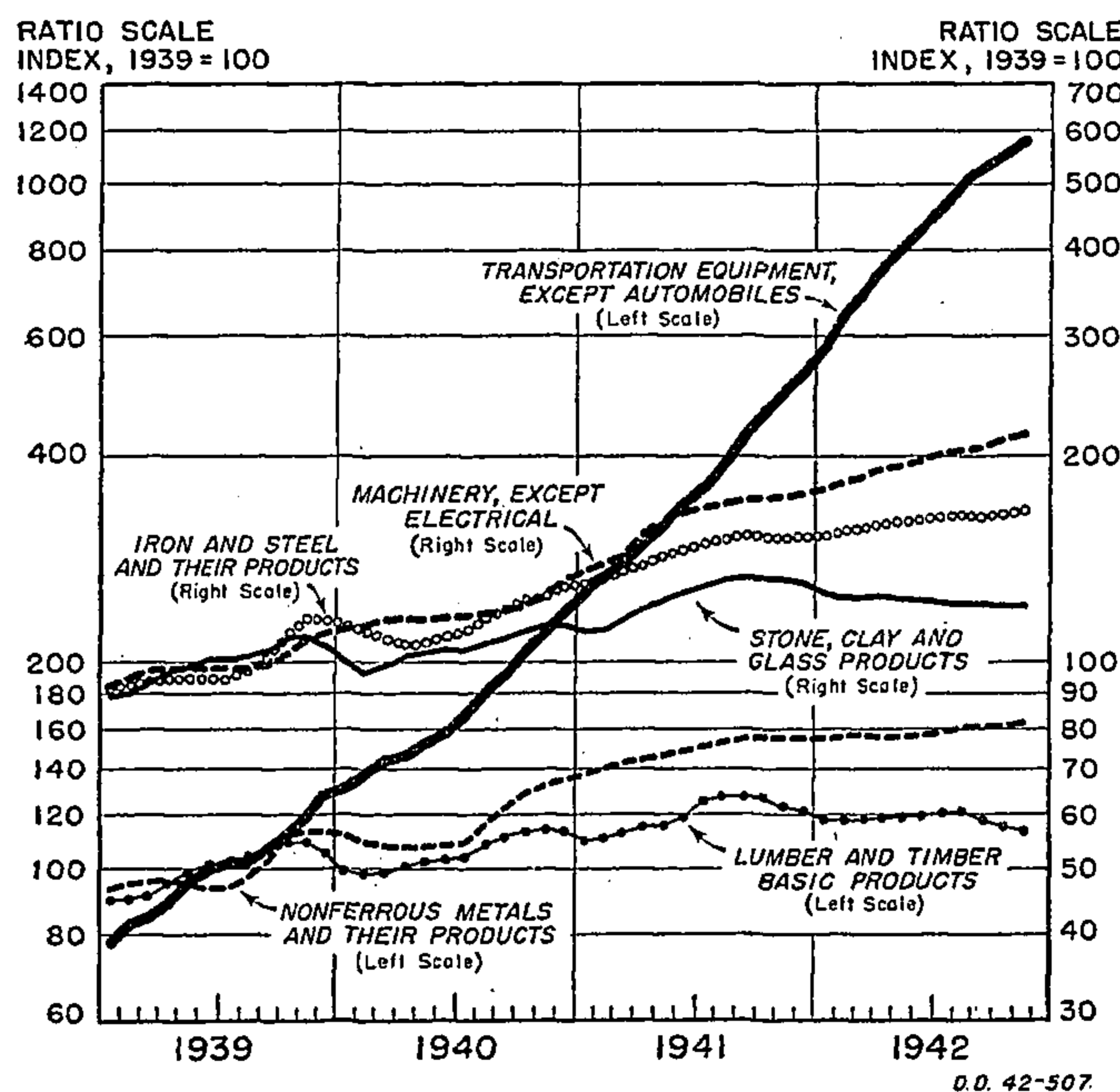
At the year-end, the number of unemployed had been reduced to about 1,500,000. It is generally expected that even at the peak of the war effort, roughly 1,000,000 will remain unemployed. Some of these will be unemployable but many of them will be in process of changing jobs. During a period of high labor turnover, such as the present, a sizable "float" of temporarily unemployed workers is virtually inevitable.

Mobilization of the economy for war naturally produced pronounced shifts in employment during the year both among the several industry groups and also within industries. Manufacturing and Government registered the most notable increases while trade and self-employed, proprietor and domestic service groups showed the largest declines.

Within industry groups, the major employment shifts were chiefly from nonessential to war and essential civilian goods lines. This is evident from the employment trends, shown in chart 3, of the durable-goods manufacturing industries. In some cases, comparisons of employment in 1941 and 1942 will be either difficult or meaningless because the conversion of industrial plants to war-goods manufacture may be concealed by retaining such plants in the former civilian-industrial classification.

The year's record high total of man-hours of labor was achieved by an employed group larger than ever before, working longer hours. In 90 manufacturing industries for which we have data, the average 1942

Chart 3.—Wage Earners in Selected Durable-Goods Industry Groups, without Adjustment for Seasonal Variations



Source: U. S. Department of Labor.

workweek was approximately 42.5 hours (see table 3)—an increase of 5 percent over 1941. The Government has informally determined that 48 hours should be the standard length of the workweek for the duration of the war. In view of the fact that, apart from seasonal changes, our civilian labor force is now about as large as it will be even at the peak of the war effort, it is quite clear that the Nation's labor reserve, available to expand output substantially from present high levels, consists very largely of our ability to work longer hours per week, at least up to 48 on the average. Some of the war industries, especially various metal-working trades, were averaging close to or above 48 hours a week in October. A number of the nondurable goods and mining industries, in contrast, were recently still working considerably less than 40 hours. In

Table 3.—Average Hours Worked Per Week in Manufacturing Industries

Industry and industry group ¹	[Hours]		
	1940	1941	1942 (estimated)
All manufacturing.....	38.1	40.5	42.5
Durable goods.....	39.2	42.1	44.9
Nondurable goods.....	37.0	38.9	39.9
Selected industry groups or industries:			
Machinery, not including transportation equipment.....	41.3	45.0	47.9
Machine tools.....	48.2	51.7	54.3
Electrical machinery, apparatus, and supplies.....	40.7	43.8	45.9
Nonferrous metals and their products.....	40.0	42.4	44.4
Automobiles.....	37.9	39.7	43.2
Iron and steel and their products, not including machinery.....	38.1	41.0	42.4
Food and kindred products.....	40.0	40.5	41.4
Chemicals, petroleum, and coal products.....	38.7	39.8	41.0
Rubber products.....	36.9	39.5	40.5
Textiles and their products.....	35.0	37.6	38.8
Leather and its manufactures.....	34.9	38.3	38.6

¹ Data are based upon classification prior to September 1942 as data for the revised industry classification shown in current reports are available only for recent months.

Sources: U. S. Department of Labor, except 1942 data which were estimated by the U. S. Department of Commerce.

Table 4.—Average Hours Worked Per Week and Employees in Manufacturing Industries, October 1942¹

Industry group ²	Average hours worked per week	Employees	
		Thousands	Per cent of total
All manufacturing.....	43.6	12,721	100.0
Durable goods.....	45.7	7,153	56.2
Nondurable goods.....	40.6	5,569	43.8
Machinery, except electrical.....	48.6	1,119	8.9
Transportation equipment except automobiles.....	47.1	1,768	13.9
Electrical machinery.....	46.4	594	4.7
Nonferrous metals and their products.....	45.3	371	2.9
Automobiles.....	44.9	478	3.7
Iron and steel and their products.....	43.4	1,636	12.9
Paper and allied products.....	43.3	295	2.3
Furniture and finished lumber products.....	43.1	350	2.8
Rubber products.....	42.7	162	1.3
Chemicals and allied products.....	42.5	655	5.1
Lumber and timber basic products.....	42.5	484	3.8
Food and kindred products.....	41.9	1,125	8.8
Products of petroleum and coal.....	40.5	125	1.0
Textile mill products and other fiber manufactures.....	40.4	1,255	9.9
Tobacco manufactures.....	40.4	99	.8
Stone, clay, and glass products.....	39.8	354	2.8
Leather and leather products.....	38.8	350	2.8
Printing, publishing, and allied industries.....	38.5	324	2.5
Apparel and other finished textile products.....	36.8	843	6.6
Miscellaneous industries.....	44.9	335	2.6

¹ The industrial groups, except miscellaneous, are arranged in decreasing order of magnitude of average hours worked per week.

² Revised industry classification which differs from the classification in use prior to September 1942, shown in table 3, because of shifts between groups or subdivisions of groups.

Source: U. S. Department of Commerce.

order to bring the national average workweek up to 48 hours, obviously some major adjustments lie ahead.

Perhaps the largest unknown in the entire manpower problem is that of productivity per man-hour. There is scattered evidence to show that in 1941 productivity in manufacturing was the highest on record. The trend in 1942, however, has been much in doubt because sweeping changes in the character of goods produced have made it difficult if not virtually impossible to obtain measures of productivity comparable with those for former years. Factors tending to decrease productivity per man-hour during the year have included high labor turn-over and loss of experienced personnel, the increasing proportion of green and unskilled help employed, fatigue from longer hours, and the necessity of using new substitute materials, new methods, and older, less efficient machinery. Among the factors tending to increase productivity were larger-scale operations, simplification of output, and the application of newer processes of production—many of them involving increased amounts of machinery, equipment, and power per man. In order to achieve the peak war production constituting the principal objective on the home front, it will undoubtedly be necessary to lift productivity per man wherever possible in the war industries.

The centralization of control over manpower in the War Manpower Commission was effected by Executive Order on December 5, 1942. By the transfer of the Selective Service System to the Manpower Commission, the latter is vested with the vital task of providing manpower for both our armed forces and our essential industries. This centralization of authority presages the development of more unified and forceful policies designed to solve such problems as procuring workers for

essential jobs in ways that will end labor pirating, reducing the present high rates of labor turn-over, reconciling the conflicting claims of war and essential industries and of the armed forces for men, and shifting workers from nonessential to essential industries and occupations where they will be most effective.

Raw Materials

The aggregate volume of raw materials processed in the American economy during 1942 seems on balance to have been larger than in 1941 or any previous year. How much larger cannot be known precisely because of difficulties of assigning appropriate weights. Precisely what, for example, was the net gain or loss to the 1942 war program because our industries had more steel and less rubber than in 1941, or more mercury and sisal with less burlap and cork?

Table 5.—Summary of Raw Material Supplies

Item	1940	1941	1942
Total agricultural production (billions of 1935-39 dollars) ¹	9.7	9.9	11.1
Crops.....	3.7	3.7	4.3
Livestock products.....	6.0	6.2	6.8
Production indexes (1935-39=100): ²			
Lumber.....	115	129	127
Cement.....	122	154	174
Fuels ³	114	122	126
Supply index of 6 basic metals (1935-39=100) ⁴	144	180	190

¹ U. S. Department of Agriculture.

² Board of Governors of Federal Reserve System.

³ Includes coal and crude petroleum.

⁴ U. S. Department of Commerce; based on production and imports. Includes steel, copper, lead, tin, zinc, and aluminum.

The supplies of materials available during the year came from new production, imports, and stocks in the hands of the Government and private business. Reasons of security prevent the giving of detailed information on specific critical materials, but the data in table 5 give a general summary of the 1942 materials situation. The Nation's farms produced the largest volume of agricultural materials in their history. Some of the details concerning this record volume of agricultural output are shown in table 6. The output of our forests, as measured by lumber, fell slightly. Quarry pro-

Table 6.—Volume of Agricultural Production for Sale and Farm Consumption
[1935-39=100]

Product	1939	1940	¹ 1941	² 1942
Total.....	106	110	113	127
Crops.....	107	107	110	125
Food grains.....	101	110	131	138
Feed grains and hay.....	124	114	126	147
Cotton and cottonseed.....	89	95	83	100
Oil bearing crops.....	143	171	189	326
Tobacco.....	129	101	87	98
Truck crops.....	106	111	115	127
Fruits and tree nuts.....	111	110	114	114
Vegetables.....	99	101	102	105
Sugar crops.....	106	104	97	113
Livestock and livestock products.....	106	112	115	129
Meat animals.....	109	118	118	139
Poultry and poultry products.....	108	109	115	128
Dairy products.....	102	105	110	116

¹ Preliminary.

² Tentative estimate.

Source: U. S. Department of Agriculture.

duction, as indicated by cement, was sharply higher. Minerals output, represented by fuels and metallic minerals, was also higher. Supplies of six basic metals, including imported quantities along with domestic output, were about 5 percent above 1941. Chief among these metals was steel.

Chief losses were naturally in imported materials. As shown in a later section, imports in the first 11 months of 1942 were 20 percent below the corresponding period of 1941. More than 100 commodities have been listed as strategic and critical by the War Production Board. Of these, our entire supplies of at least 25 have to be imported. In the case of many others, imports constitute half or more of our entire supply and form the margin of difference between adequate supplies and serious shortages. Our imports of many of these strategic and critical materials rose during 1942, but in the majority of cases they fell.

Smaller portions of 1942 material supplies went into business stockpiles, however, and larger portions than in 1941 flowed into consumption. Moreover, there is evidence that in 1942, as compared to 1941 and earlier years, the materials available were more highly processed and for this reason supported a larger volume of industrial production.

Plant and Equipment

Large additions made to the Nation's industrial plant and equipment during 1941 and 1942 gave industry more facilities with which to work during some part or all of 1942. Because of extra wear and tear due to the current high rate of operations, deterioration of capital facilities was undoubtedly high. But certainly capital consumption was far less than the new capital goods added and also very probably less than the financial depreciation allowances charged off as costs.

Industrial construction on an unparalleled scale during the last 2 years, as shown in table 7, increased the Nation's industrial plant to the highest level ever

Table 7.—Industrial New Construction, 1929-42

[Millions of dollars]

Year	Private	Public	Total
1929.....	830	(1)	830
1930.....	519	(1)	519
1931.....	214	(1)	214
1932.....	83	(1)	83
1933.....	188	(1)	188
1934.....	178	9	187
1935.....	160	4	164
1936.....	284	3	287
1937.....	503	4	507
1938.....	191	14	205
1939.....	227	14	241
1940.....	423	144	567
1941.....	678	1,400	2,078
1942 (preliminary).....	314	3,696	4,010
Total, 1941-42.....	992	5,096	6,088
Total, 1929-42.....	4,792	10,080

¹ A small but indeterminate amount of public construction is included with private.

Source: U. S. Department of Commerce.

attained. Most of the new and expanded plants belonged to our rapidly growing armaments industries but many others were in basic materials industries, such as steel, aluminum, and other metals, which expanded our ability to produce civilian goods under peacetime conditions. While the convertibility to civilian uses of some of these new plants is problematical, there is no doubt of the magnitude of the addition they made to our wartime industrial capacity in the year just ended.

Naturally, new tools, machinery, and other equipment were also put into operation over the last year or two, not only in the new plants but in old ones as well. Industry began the year 1942 with approximately 26 percent more machine tools, for instance, than it had on January 1, 1940, according to the following estimates:

Date	Additions between dates shown	Number of tools in place	Percent change from previous period
January 1, 1940:.....			
Total machine tools.....		934,000	
Less obsolete (over 17½ years).....		-164,000	
Net machine tools in place.....		770,000	
January 1, 1942.....	200,000	970,000	+26
January 1, 1943.....	270,000	1,240,000	+28

It will be noted that during 1942, some 270,000 new machine tools were delivered, constituting an addition of about one-fourth to those in place at the beginning of the year. Furthermore, these new tools are known to be much more effective than the old ones in cutting and working materials. Their increased effectiveness, in fact, has been roughly estimated as high as one-fifth. Deliveries of all types of machinery and equipment, including machine tools, to war industries have been on a tremendous scale during the past 2½ years:

	<i>Deliveries of Machinery and equipment¹</i> (million dollars)
July 1, 1940, to Dec. 31, 1941.....	959
1942 estimated total.....	2,900

¹ Only Government financed machinery and equipment.

Industry began the year 1942, as may be seen from the above data, with nearly a billion dollars worth more publicly financed equipment than it had at the time of Dunkerque. During 1942 nearly 3 billion dollars more machinery and equipment was installed in publicly financed war plants. Despite these large deliveries, the need for all available machinery was such that many machine tools and other equipment, which industry had long ago written off as worthless and put aside for junking, were resurrected and put back into effective operation.

Altogether it is clear that never before in the Nation's history was so much physical industrial capital brought

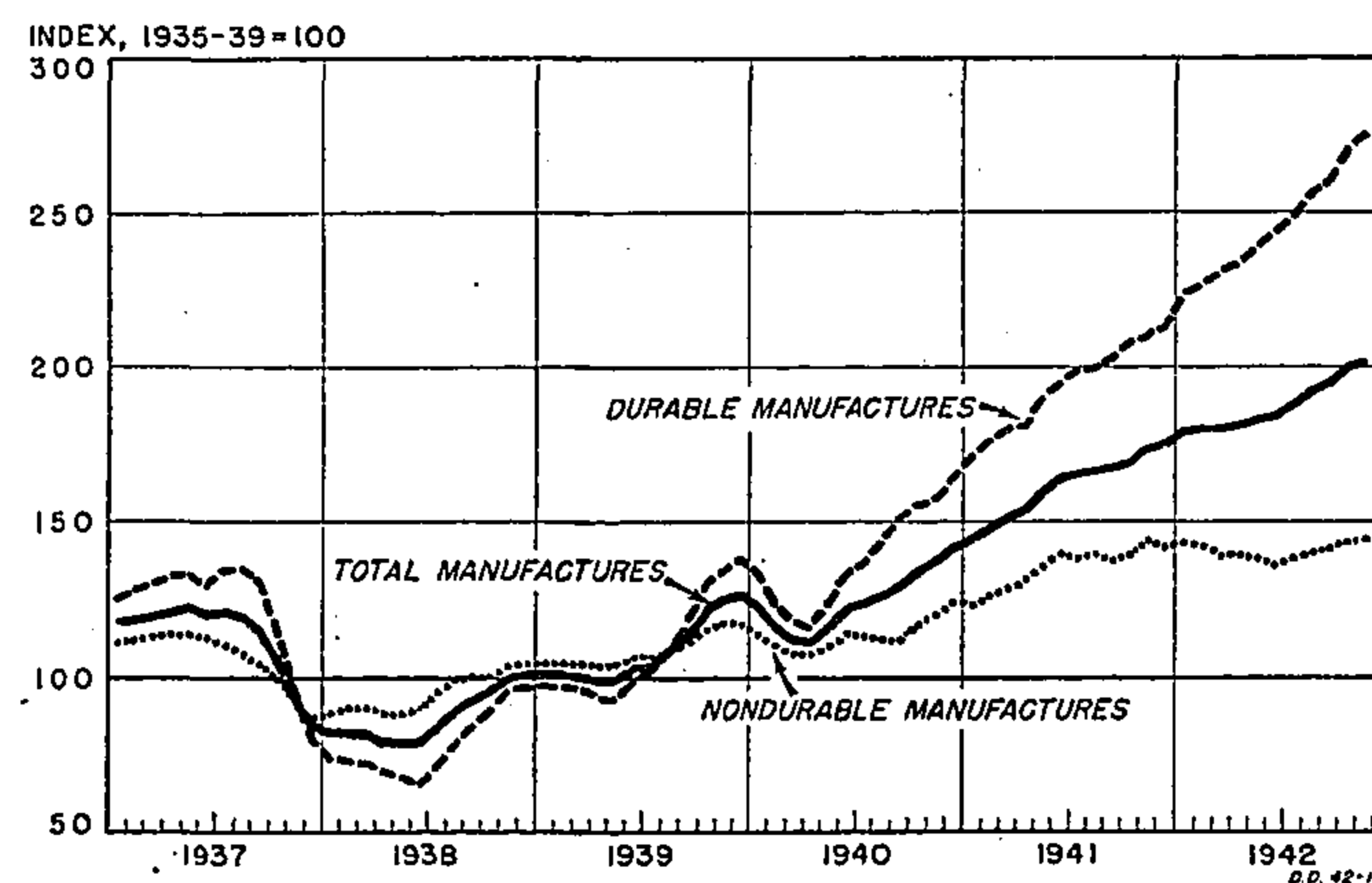
to bear on the processing of materials as in the year just ended.

Moreover, this unprecedentedly large volume of industrial capital was more continuously operated during 1942 than in previous years. Statistics are neither very complete on this point nor available for publication but they do show a rising trend in hours of machinery operation per week during the year. This trend is due to the addition of second and third shifts or where more shifts have not been added, to longer hours per week on the single shift, especially in those industries turning out war goods.

Industrial Production

The year 1942 was marked not only by record increases in industrial production, but also by sharp changes in the composition of output as war requirements dominated the industrial scene. Total industrial production, as measured by the Federal Reserve index, registered approximately a 15-percent advance during the year, but the preponderance of this gain was recorded in the durable-goods manufacturing industries,

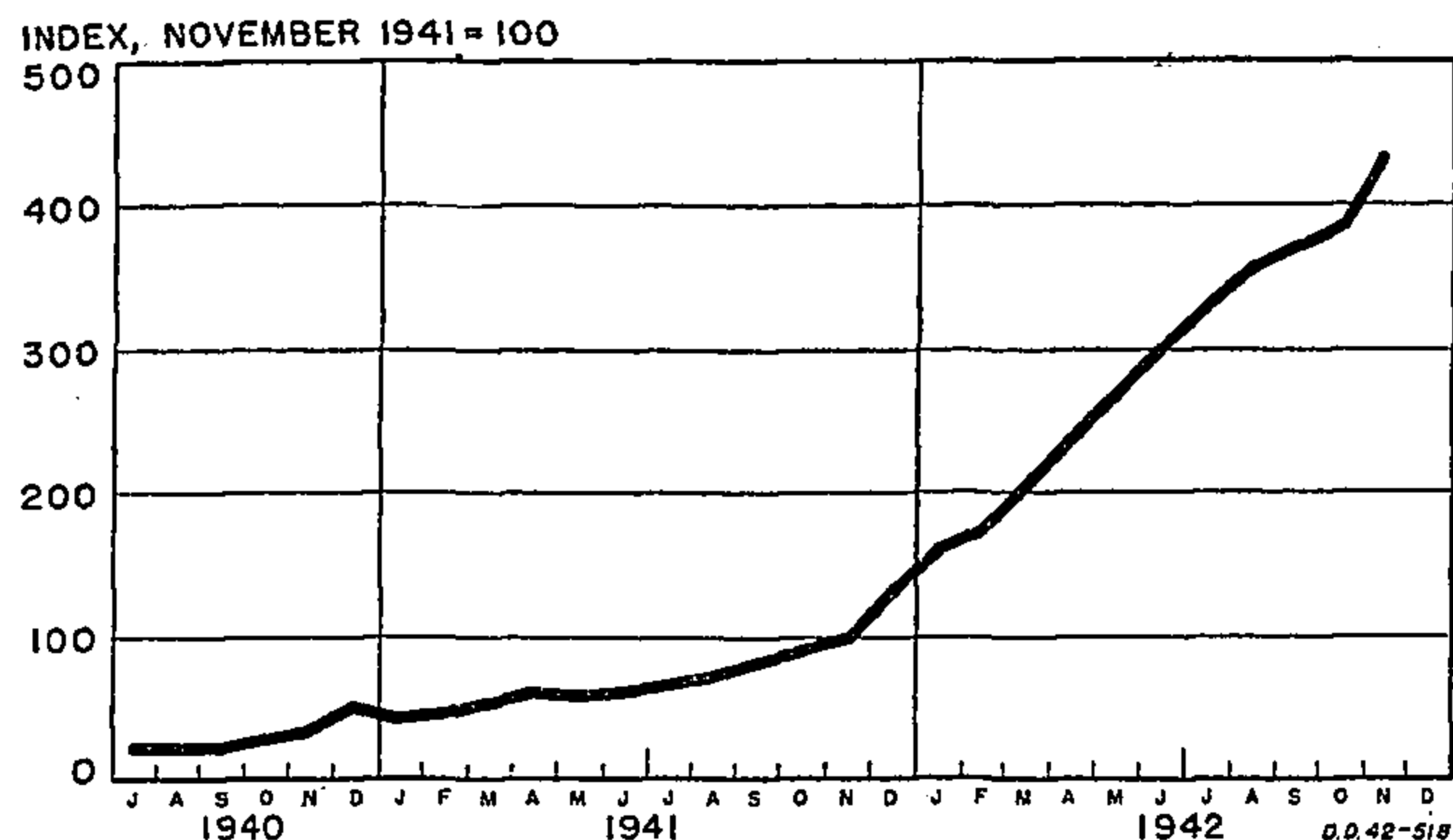
Chart 4.—Production of Manufactures, Adjusted for Seasonal Variations



Source: Board of Governors of the Federal Reserve System.

where war orders were concentrated. Production of nondurable goods increased only 4 percent in contrast to the rise of nearly 30 percent among the durables. Production of minerals was also 4 percent above 1941, but the bulk of this increase was accounted for by fuels. The metals index was held down by declining production of gold and silver. If these are excluded, the metallic minerals index advanced 13 percent.

The growth of munitions production throughout the year was steady, although the record was not equally good with respect to all parts of the munitions program. According to the War Production Board's index of munitions output, shown in chart 5, aggregate munitions production during November was at a rate approximately 4 times that of a year earlier. Adjustments to bring about better balance in the entire munitions program and to take account of the growing scarcity of materials were associated with the decline in the rate of

Chart 5.—Production of Munitions, without Adjustment for Seasonal Variations¹¹ Includes ships, planes, tanks, guns, ammunition, and all field equipment.

Source: War Production Board.

growth of munitions output during September and October, but in November production once more shot ahead to register the largest monthly increase yet recorded.

Among the durable-goods manufacturing industries the transportation-equipment group, including the vital shipbuilding and aircraft industries, recorded the largest gain, amounting to nearly 80 percent over 1941. Large scale production of the standard model Liberty ship made possible numerous technological improvements in the methods of ship construction which shortened the

Table 8.—Indexes of Industrial Production

[1935-39 = 100]

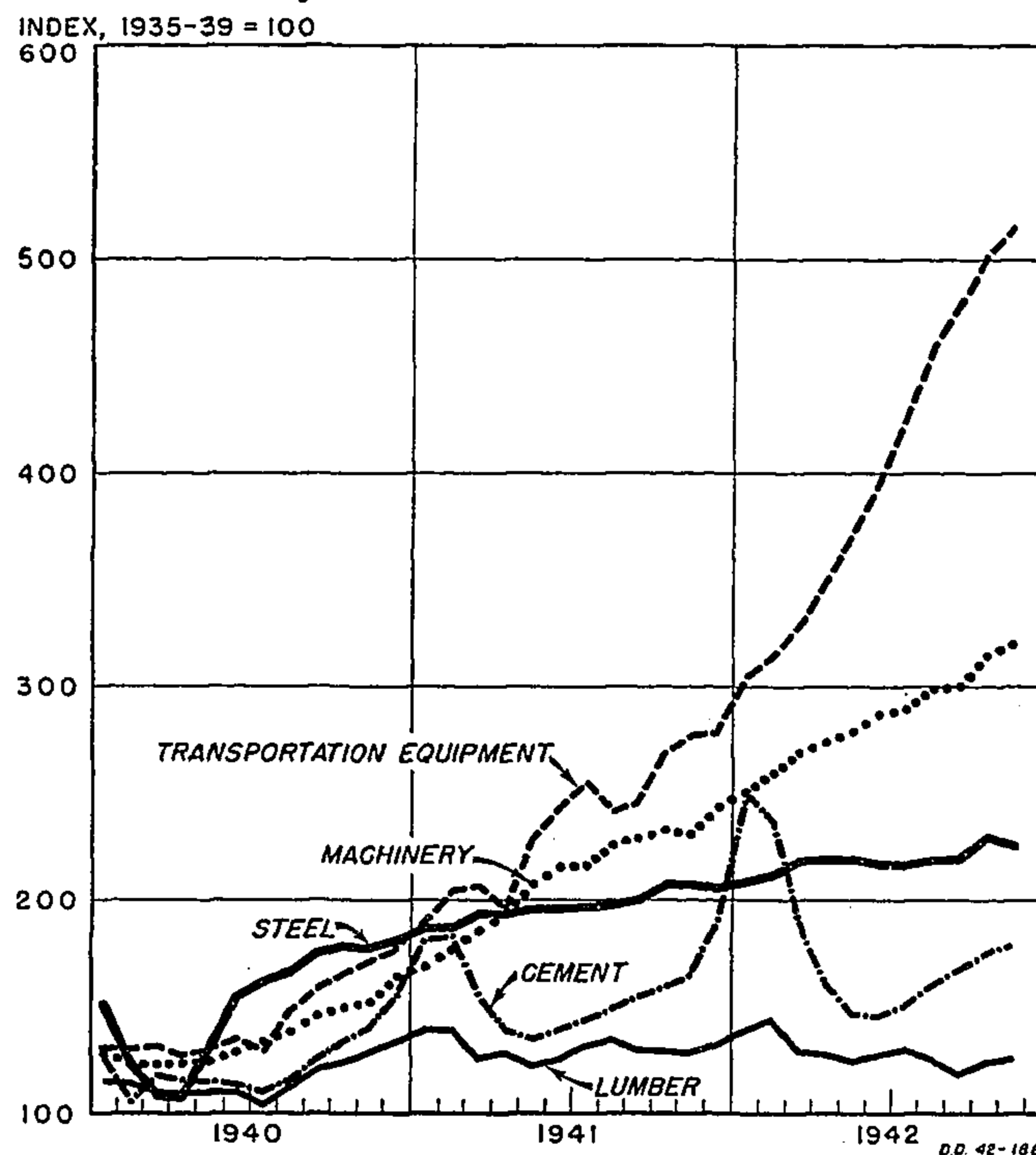
Item	1940	1941	1942	Per- cent change, 1942 from 1941
Total index.....	123	156	180	+15
Manufactures.....	124	161	189	+17
Durable goods.....	138	193	250	+30
Nondurable goods.....	113	135	140	+4
Minerals.....	117	125	130	+4
Durable manufactures:				
Open-hearth and Bessemer steel.....	143	175	180	+3
Electric steel.....	212	357	495	+30
Machinery.....	135	210	289	+38
Transportation equipment.....	145	234	415	+77
Automobile bodies, parts, and assembly.....	116	140	119	-14
Nonferrous metals and products.....	137	185	188	+2
Lumber and products.....	116	134	132	-2
Lumber.....	115	129	128	-1
Furniture.....	117	145	140	-3
Stone, clay, and glass products.....	121	152	156	+3
Cement.....	122	154	172	+12
Nondurable manufactures:				
Textiles and products.....	114	151	155	+3
Cotton consumption.....	120	158	171	+8
Woolen and worsted cloth.....	105	162	175	+8
Leather and products.....	97	121	120	-1
Shoes.....	100	123	118	-4
Manufactured food products.....	114	128	141	+10
Manufactured dairy products.....	114	132	146	+11
Meat packing.....	125	129	146	+13
Other manufactured foods.....	113	129	144	+12
Alcoholic beverages.....	101	116	125	+8
Tobacco products.....	109	120	130	+8
Paper and paper products.....	123	142	139	-4
Paper.....	119	142	136	-4
Printing and publishing.....	111	124	115	-7
Newsprint consumption.....	103	107	103	-4
Printing paper.....	118	141	127	-9
Petroleum and coal products.....	116	128	122	-5
Gasoline.....	112	126	110	-13
Coke.....	135	151	164	+9
Chemicals.....	114	139	170	+22
Minerals:				
Bituminous coal.....	116	129	147	+17
Anthracite.....	101	110	121	+14
Crude petroleum.....	116	120	119	-1
Metals, excluding gold and silver.....	145	168	190	+13

Source: Board of Governors of the Federal Reserve System, except data for 1942 which were estimated by the U. S. Department of Commerce.

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production period in this industry to a fraction of the time formerly required. Many new shipways on both coasts also came into production during the year. Reports on the progress of the shipbuilding program indicated that output during the year was slightly in excess of the Presidential announced objective of 8,000,000 deadweight tons.

Aircraft production also made remarkable strides during 1942, despite some difficulties in securing a balanced flow of all parts and subassemblies. On January 7, the President, in his message to Congress, announced that 1942 aircraft output had been 48,000 planes of all types. Improvements in the design of combat aircraft resulted from actual battle experience and the quality of various models was steadily improved throughout the year.

Chart 6.—Production of Selected Durable Manufactures, Adjusted for Seasonal Variations

Source: Board of Governors of the Federal Reserve System.

Production of steel increased moderately during the year, but supplies of a number of partially fabricated steel products such as plates and shapes ran far short of requirements. Approximately 86,000,000 tons of ingot steel were produced, roughly 4 percent more than last year. Electric steel, required for armor plate and munitions, increased sharply in volume in response to pyramiding demand.

Production in the other durable-goods industries reflected difficulties attendant upon conversion, shortages of materials, and the increasing importance of military requirements. Production in the automobile industry was slowed considerably during the first half of the year by the change-over to war orders, but picked up rapidly thereafter. Smelting and refining of

nonferrous metals, and manufacture of the finished products, registered only a modest gain, according to the Federal Reserve index, but the index probably does not reflect accurately the full increase in output in these industries. Shortages of the raw nonferrous metals continued to hamper production throughout the year and to necessitate the strictest controls over supplies and inventories in order to meet the largest possible part of the military requirements.

Illustrative of the increasing importance of the output of the durable goods manufacturing industries are the data contained in table 9, which show the relative contributions by different industrial groups, as measured by the Federal Reserve index, to total industrial production. In this table both the weights of industrial components in the index for the base period, and the increases since that period have been taken into account. Since the weights in the Federal Reserve index are derived from value added by manufacture in 1937, the resultant distribution for 1942 indicates approximately the value added by different types of production last year.

Table 9.—Relative Importance of Industry Groups in Aggregate Industrial Production

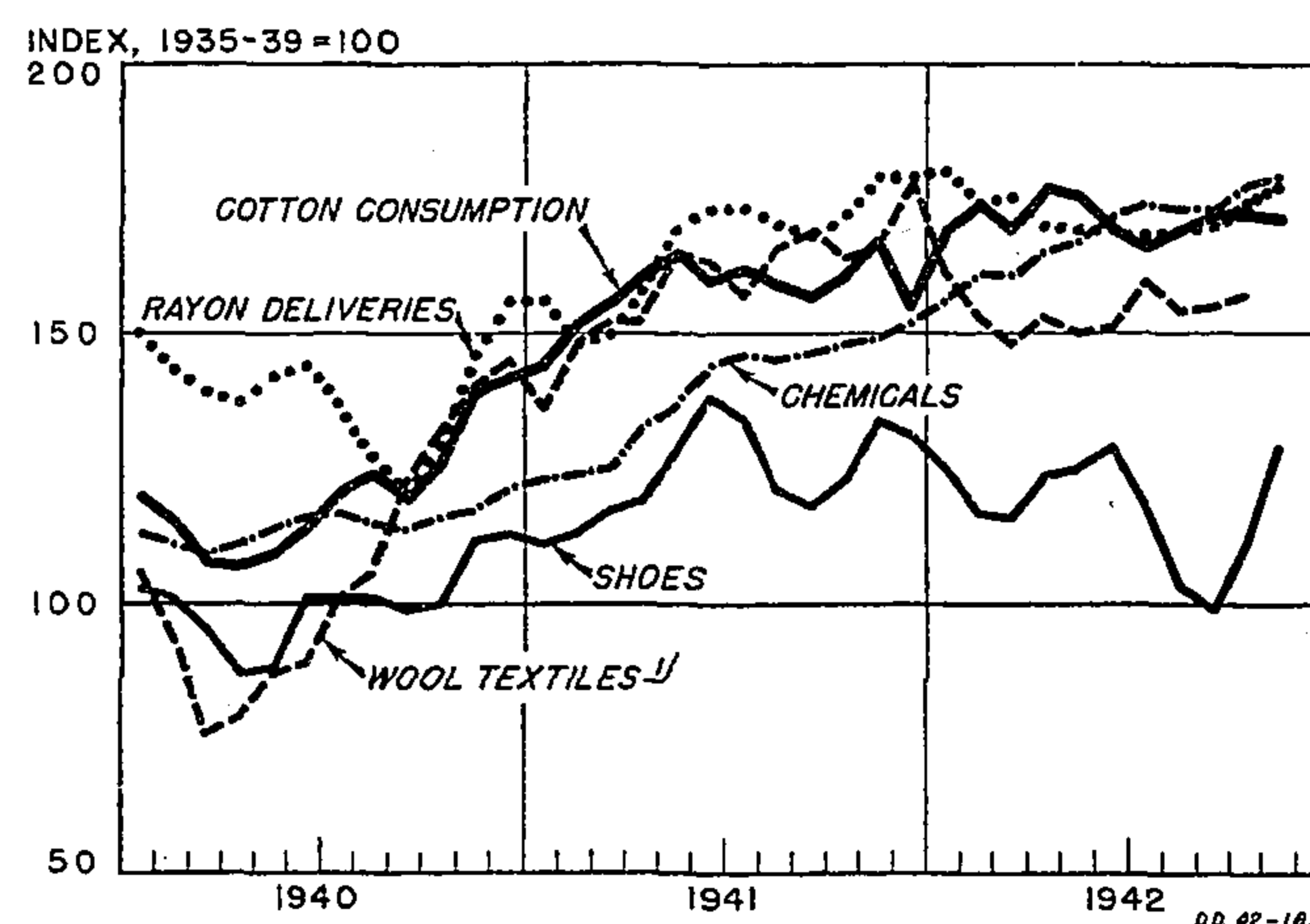
Item	1929	1937	1939	1940	1941	1942
Index of total industrial production, 1935-39=100.....	110	113	108	123	156	180
Durable manufactured goods:						
Points in total index.....	50	46	41	52	73	94
Percent of total industrial production.....	45	41	38	42	47	52
Nondurable manufactured goods:						
Points in total index.....	44	50	51	53	64	66
Percent of total industrial production.....	40	44	47	43	41	37
Minerals:						
Points in total index.....	16	17	16	18	19	20
Percent of total industrial production.....	15	15	15	15	12	11

Source: Board of Governors of the Federal Reserve System.

Among the nondurable goods manufacturing industries, production trends during the year were divergent, as may be seen from chart 7. The trend for a given industry was governed both by its adaptability to military orders and by its relative dependence upon scarce materials. Gains were recorded in textiles, foods, and chemicals as increased military and Lend-Lease requirements were added to expanded civilian demand. Losses in comparison with the previous year's output occurred in leather products, paper products, printing and publishing, and petroleum and coal products.

Perhaps more important than the comprehensive increases in industrial production during 1942 was the enlarged portion of the output of most industries diverted to war purposes, leaving in these cases a dwindling residual for civilian uses. While an exact classification of output into war and nonwar segments cannot, of course, be made because of the varying degrees of essentiality to the war program of nearly all new production, rough estimates of this sort are possible. They are of interest for the light they throw upon the

Chart 7.—Production of Selected Nondurable Manufactures, Adjusted for Seasonal Variations



¹ Data for November 1942 were not available in time to include them in this chart.
Source: Board of Governors of the Federal Reserve System.

extent to which economic mobilization has already occurred. Whereas in 1941, apparently less than 20 percent of industrial production was destined for direct military use, during 1942 the estimated military proportion averaged well above 50 percent and by the final quarter of the year constituted roughly two-thirds of the total.³

Naturally the approximate proportion of industrial production representing war goods was much higher among the durable than among the nondurable manufactures, since new production of durable goods for civilian uses had been sharply curtailed by the year-end. Reflecting the heavy requirements for fuels and metals in the munitions and supply programs, the war portion of minerals output rose steadily throughout the year

Table 10.—Estimated Portions of Federal Reserve Industrial Production Index Represented by War and Civilian Output

[1935-39=100]

Item	1941	1942
Industrial production:		
Total index.....	156	180
War portion.....	28	99
Civilian portion.....	128	81
Percent war.....	18	55
Manufactures:		
Total index.....	161	189
War portion.....	29	104
Civilian portion.....	132	85
Percent war.....	18	55
Durable manufactures:		
Total index.....	193	250
War portion.....	51	183
Civilian portion.....	142	67
Percent war.....	27	73
Nondurable manufactures:		
Total index.....	135	140
War portion.....	12	40
Civilian portion.....	123	100
Percent war.....	9	29
Minerals:		
Total index.....	125	130
War portion.....	21	71
Civilian portion.....	104	59
Percent war.....	17	55

Source: U. S. Department of Commerce.

³ Estimates of the war and civilian composition of the industrial production index have been made both by the Board of Governors of the Federal Reserve System and by the Department of Commerce with very similar results.

and by the fourth quarter was estimated to be in excess of 80 percent.

Thus it appears that in aggregate terms industrial production for civilian use was more than a third lower than it had been in 1941. New civilian durable manufactures declined to less than half their level of the previous year. Only large inventories of consumer durable goods in the hands of manufacturers, wholesalers, and retailers prevented the curtailment in the flow of durable goods to consumers from being even more drastic than it was during the year. As these inventories of now irreplaceable consumer durables are exhausted, the flow to consumers will of necessity shrink to small proportions.

Production for civilians among the nondurable goods industries during the year just closed apparently declined less than one-fifth, although in some products the curtailment was much greater. In many of these cases, however, inventories were also relatively large and the real effects of the production cuts will not be felt on a broad scale until some time during 1943.

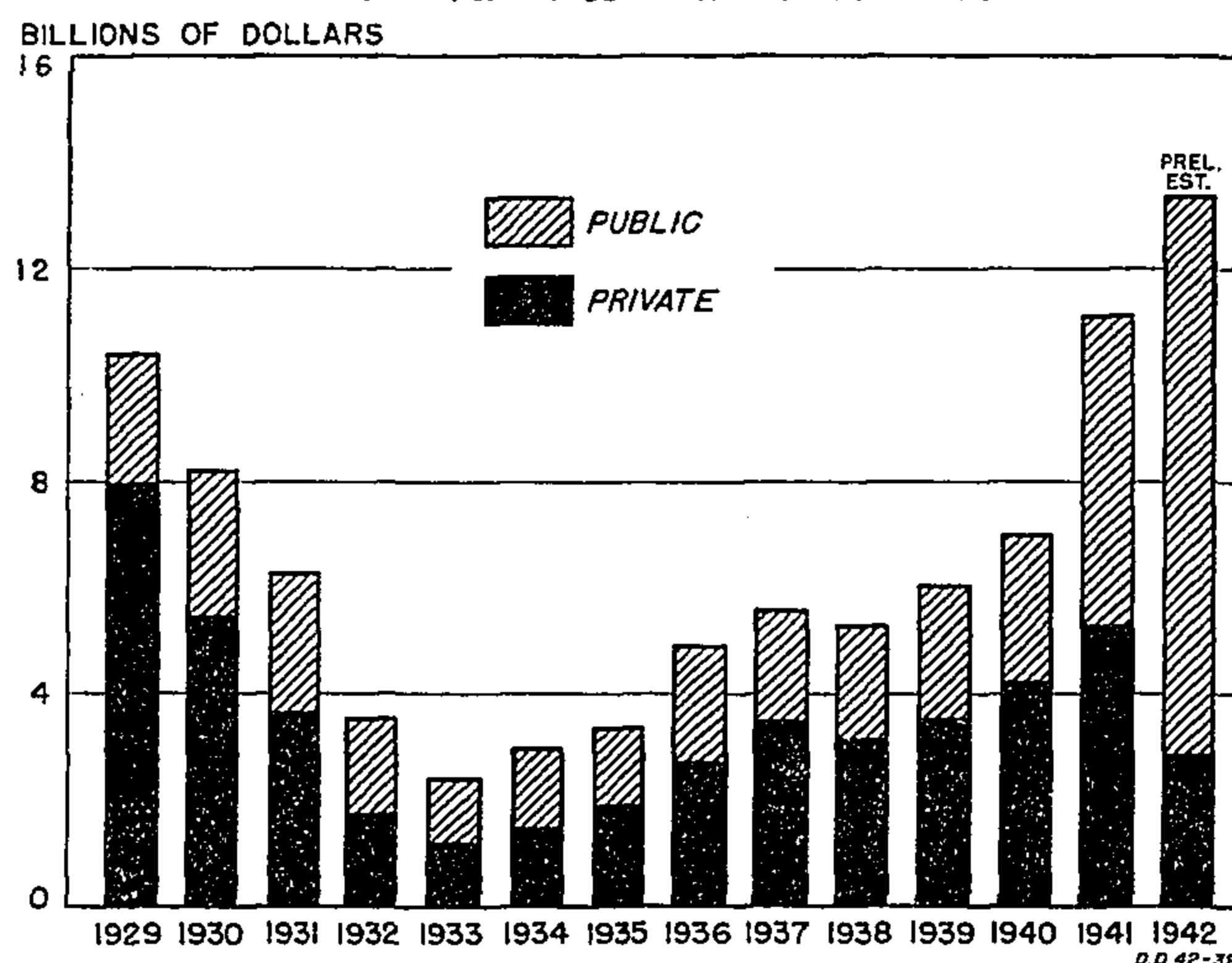
The classification of industrial production into war and civilian portions, presented in table 10, should be regarded as giving only very approximate results and as showing only in a rough way the relative impacts of the war program. Significance should not be attached to exact percentage points, which are necessarily estimated from incomplete and, in certain cases, fragmentary data. In making the estimates, only direct military and Lend-Lease supplies have been allocated to the war portion of the index, but the boundary line between military and civilian output is becoming increasingly difficult to draw and will have less and less meaning as we approach a maximum war effort.

Construction

Construction activity was another one of the many economic magnitudes establishing new records during 1942. The gain was concentrated entirely in the first 3 quarters of the year. The final quarter saw a decided drop because of curtailments necessitated by materials shortages. Private building was in lower volume but the decrease was far more than offset by the great expansion of public construction. Of the latter, the largest single share was for military and naval purposes but another large part was for publicly financed industrial facilities. Residential construction was cut in half, but the building of new plants, both on public and private account, was approximately 90 percent above the previous year. Most of this plant construction naturally represented new capacity available to the war program. Indeed the degree to which munitions output has been provided for by the construction of new plants rather than by the conversion of already existing facilities, is striking.

Despite the continuance of residential building at a fairly high level, housing difficulties became increasingly great in many war-plant areas to which thousands of

Chart 8.—Value of New Construction ¹



¹ Data do not include work-relief construction.

Source: U. S. Department of Commerce.

new workers migrated. This housing shortage was reflected in a decline in vacancy rates to new low levels.

Total construction activity during 1942 was valued at more than 13 billion dollars, with publicly financed construction accounting for more than 10 billions. While the increase in dollar volume over the preceding year was mainly attributable to increased volume of building, there occurred during the year a moderate increase in building costs. Late in the year, construction costs for buildings of all types were running on the average 6 or 7 percent above the levels of a year earlier. Rising materials and labor costs both contributed to the advance.

Table 11.—New Construction Activity in the United States by Function and Ownership
[Millions of dollars]

Item	1940	1941	1942
New construction, total ¹	6,951	11,145	13,558
Private, total	4,196	5,261	2,964
Residential building (nonfarm) ²	2,323	2,881	1,461
Nonresidential building	982	1,306	522
Industrial	423	678	314
All other ³	559	628	208
Farm construction	245	300	245
Dwelling	145	176	132
Service	100	124	113
Public utility ⁴	646	774	736
Public, total	2,755	5,884	10,594
Residential	205	479	600
Military and naval ⁵	510	2,059	5,013
Nonresidential building	497	1,671	3,385
Industrial	144	1,400	3,696
Other ⁶	353	271	139
Highway	946	1,013	671
Sewage disposal and water supply	143	115	107
All other Federal ⁷	353	425	310
Miscellaneous public service enterprises ⁸	101	122	58

¹ Does not include data for work-relief construction.

² Data for 1940 and 1941 prepared by the Bureau of Labor Statistics, U. S. Department of Labor; those for 1942 are preliminary estimates of the Department of Commerce.

³ Includes religious, educational, social and recreational, hospital and institutional, commercial, and miscellaneous nonresidential building.

⁴ Includes railroads, street railways, pipe lines, electric light and power, gas, telephone and telegraph utilities.

⁵ Includes cantonments, aeronautical facilities, navy yards and docks, army and navy hospitals, etc.

⁶ Includes public, commercial, educational, social and recreational, hospital and institutional, and miscellaneous public building.

⁷ Includes work done by Bureau of Reclamation, Indian Service, Forest Service, Army Engineers, National Park Service, Tennessee Valley Authority, Soil Conservation Service, and other Federal agencies not included elsewhere.

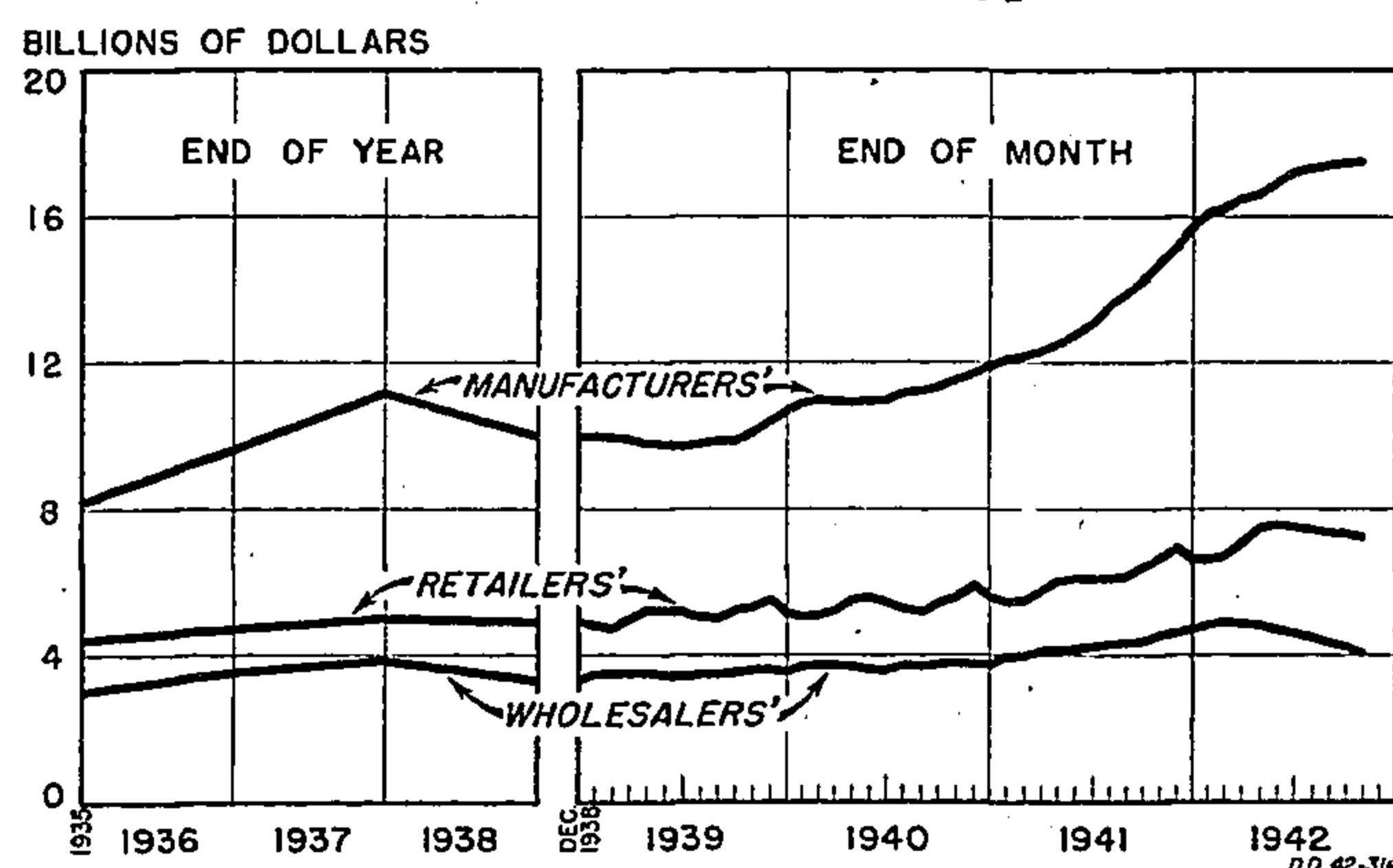
⁸ Includes such municipal enterprises as street railways and other transit systems, gas systems, ports, docks, harbors, airport tunnels, etc.

Source: U. S. Department of Commerce; data for 1942 are preliminary.

Manufacturers' Inventories

The increase in manufacturing production during 1942 was accompanied by continued accumulation of inventories. By the end of the third quarter, however, evidences of a substantial slackening off in the rate of inventory growth had become apparent.⁴ To a large extent this growth of stocks was an inevitable concomitant of expanding production. Nevertheless, there was evidence that in many individual cases, inventories had become excessive and were causing a maldistribution of critical materials that was hindering war production. These cases demonstrated the need for giving increased attention to inventories in the plans for controlling scarce materials as the war program approaches its peak.

Chart 9.—Value of Inventories by Type of Business



Source: U. S. Department of Commerce.

When dollar figures on manufacturers' inventories are broken down by stages of fabrication, it is seen that more than 40 percent of the total represents raw materials while the remainder represents work in process and finished products.⁵ One fact of significance about the inventory picture during 1942 is the decline in inventories of finished products which occurred during the third quarter, indicating that the flow of goods was being speeded to other industries or into distributive channels.

The problem of manufacturers' inventories is one aspect of the broader problem of scheduling the production requirements of the war program. Scarce raw materials must be distributed among all producers requiring them, yet no firm can be allowed to accumulate more than the minimum stocks necessary to continued production at the scheduled rate. Production-time must be cut wherever technically possible, thus lowering the ratio of work in process to the flow of finished products. Furthermore, the finished goods must be speeded to final users in a balanced relationship to

⁴ This is not so apparent from the dollar figures except in the case of nondurable goods industries where an actual decline occurred. But when allowance is made for the rising prices of goods in inventory the decreased rate of growth is clear.

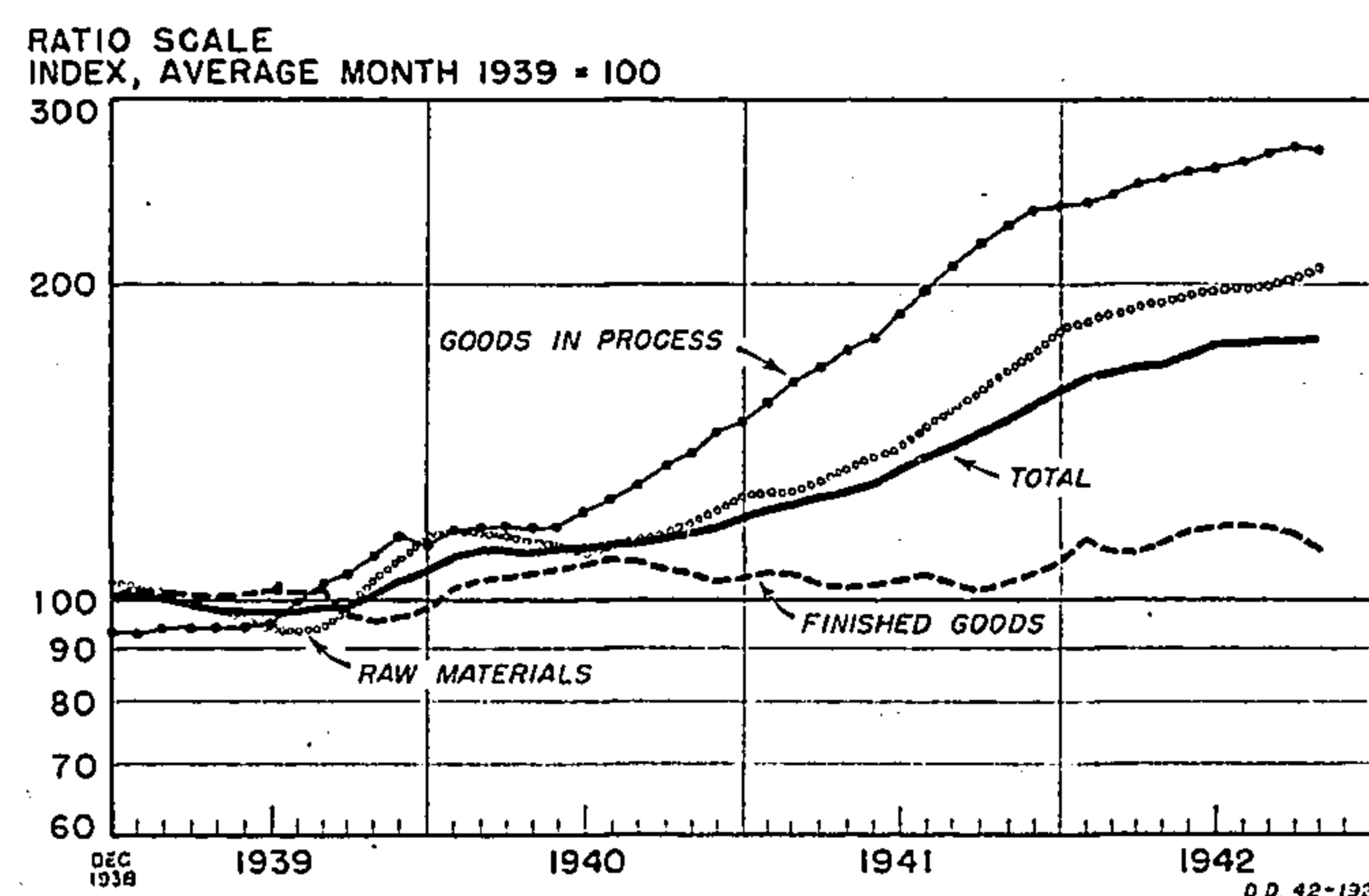
⁵ It should be emphasized that total figure for inventories of "raw materials" of manufacturing firms does not necessarily refer to raw materials in a technical sense. Rather it includes all products classified as "raw materials" by individual firms reporting. Since the classification may vary from firm to firm, the resulting aggregates can only approximate a technical classification of goods in inventory.

military and civilian needs. Excessive inventory accumulation at the finished-goods stage usually signifies, apart from transportation difficulties, some lack of balance in production programs and planning.

During 1942 progress was made toward correlating inventory holdings with production and end-product requirements, but this progress was largely the indirect result of controls over materials flow and of balancing the production program. Further progress toward a solution of the inventory problem may be expected from the direct inventory controls which take effect in 1943.

Total inventories of manufacturers have risen steadily in dollar value since the outbreak of the war,

Chart 10.—Manufacturers' Inventories by Stage of Fabrication¹



¹ Index is based upon the value of inventories at end of month.

Source: U. S. Department of Commerce.

and at the end of the fourth quarter amounted to about 17.5 billion dollars. A portion of the increase during the past year is attributable to the influence of rising prices and does not signify actual accumulation of stocks. While the true increase in physical quantities of goods carried in stock cannot be reliably estimated, owing to lack of information concerning the composition of inventories, it is probable that not more than half the dollar increase in inventories over the past year represented actual physical quantities.

Table 12.—Value of Manufacturers' Inventories, End of Quarter

[Millions of dollars]

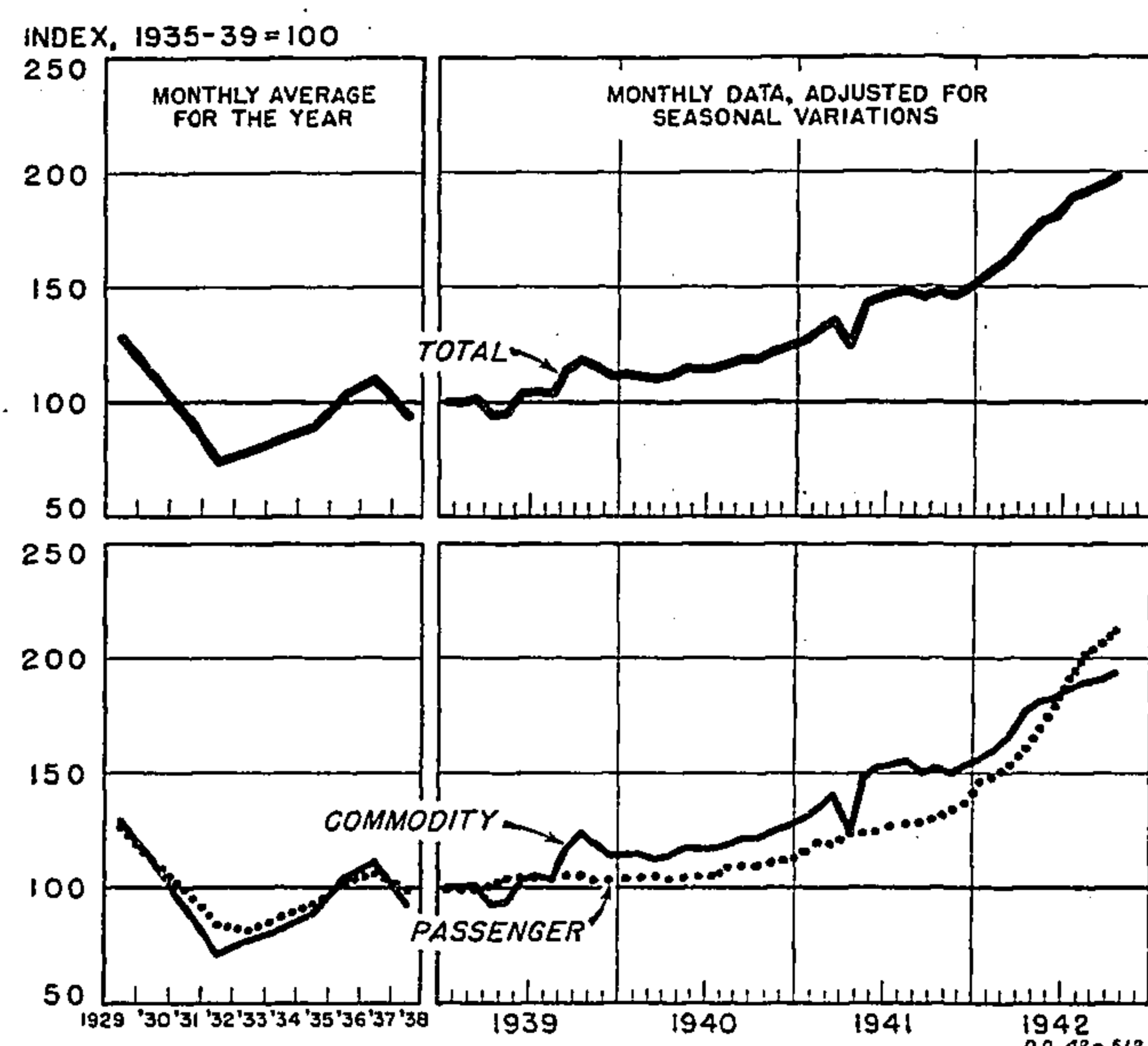
Year and quarter	Total manufacturing	Durable goods	Nondurable goods
1940:			
I.....	10,988	5,229	5,759
II.....	10,993	5,236	5,757
III.....	11,337	5,532	5,805
IV.....	11,920	6,021	5,899
1941:			
I.....	12,337	6,364	5,973
II.....	13,121	6,803	6,318
III.....	14,252	7,442	6,810
IV.....	15,747	8,140	7,607
1942:			
I.....	16,464	8,505	7,959
II.....	17,183	8,961	8,222
III.....	17,439	9,319	8,120
IV (estimated).....	17,500	9,400	8,100

Source: U. S. Department of Commerce.

Transportation

The high level of industrial production attained in 1942 was attended by a record volume of commodity transportation. Raw materials and finished goods had to be moved in ever larger quantities to support the expanded war program. Passenger travel also expanded, reflecting the increase in military and business activity as well as the decline of travel in private automobiles. Total transportation volume, including both commodity shipments and passenger movements, increased more than 25 percent during the year, according to the Department of Commerce index.⁶

Chart 11.—Volume of Transportation



Sources: Compiled by the U. S. Department of Commerce; for sources of basic data and method of constructing indexes see pp. 25-27 of the September 1942 Survey.

Increases in railroad, air, and pipe-line transport contributed to the advance of 22 percent in commodity movements. Transportation by motortruck increased slightly in spite of the parts and rubber shortages and the consequent restrictions made necessary by these shortages, while domestic water-borne traffic declined because of the diversion of shipping facilities to foreign trade and to supplying the overseas forces. Among the bright spots in the 1942 commodity-transportation picture was the record movement of iron ore on the Great Lakes. At the close of the shipping season, the ore moved was nearly 15 percent above the 1941 volume, the previous record haul.

Passenger travel during the year registered phenomenal increases, the aggregate volume being more than 40 percent in excess of the previous year. All forms of

passenger travel except by air showed substantial gains. Commercial air travel declined only because of the diversion of planes to the armed services and to air transport of commodities.

Much of the increase in passenger travel during the year represented troop movements and travel by the armed forces in line of duty. Indeed by September 1942 an estimated 25 percent of total railway passenger revenue was accounted for by the War Department. Most of the other added passengers were traveling in furtherance of the war program and the heightened industrial activity and also because of the curtailed use of private automobiles.

Table 13.—Volume of Transportation¹

[Index, daily average 1935-39=100]

Item	1940	1941	1942	Percent change 1942 from 1941
Commodity and passenger, total.....	115	141	181	+28
Total excluding local transit.....	117	145	188	+30
Commodity, total.....	118	145	181	+25
Railroad.....	115	146	195	+34
Air.....	156	205	337	+64
Intercity motortruck.....	136	168	180	+7
Oil and gas pipe lines.....	113	123	132	+7
Domestic water-borne.....	123	126	92	-27
Passenger, total.....	107	126	180	+43
Total, excluding local transit.....	112	142	234	+65
Railroad.....	108	133	242	+82
Air.....	226	294	290	-1
Intercity motorbus.....	108	143	216	+51
Local transit.....	102	112	139	+24

¹ Indexes for commodity and passenger traffic (except local transit) are based upon ton-miles and passenger-miles, respectively; index for local transit is based upon number of passengers. All 1942 data are partially estimated.

Source: U. S. Department of Commerce.

The bulk of this increased transportation burden fell on the railroads. They accomplished a remarkable record in handling the volume with only small increases in equipment. Because of the expansion in their traffic, railroad earnings gained one-third to record the best year in recent history. Thus by the end of the year, the Office of Price Administration was moving to set aside rate increases granted earlier in the year while railway labor was preparing to petition for higher wages.

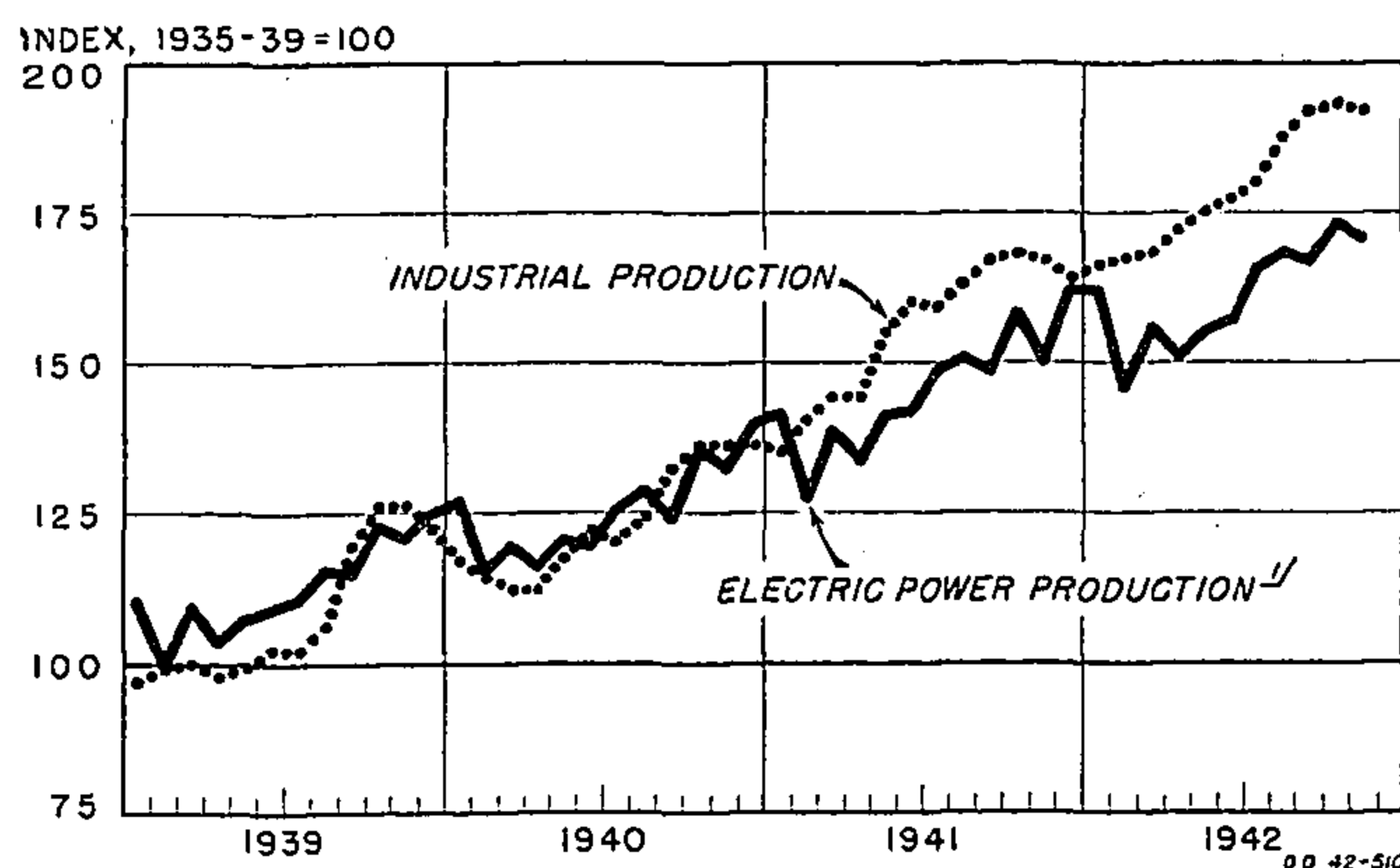
Despite the immense progress made in ship construction during 1942, war requirements for shipping space also multiplied, and the end of the year found shipping still the major deficiency in the program to conduct offensive military operations. For a substantial part of the year sinkings continued to exceed new construction. After a favorable balance had been restored by the increase in launchings and the success of the anti-submarine campaign, the growing output of vessels continued to be matched by expanding military requirements. The great geographical dispersion of our military operations plus the increased amounts of equipment required per soldier kept the shipping situation critical throughout the year. Further curtailment of civilian use of merchant shipping was necessary to meet the growth in military requirements.

⁶ This index which is based on ton-miles in the case of commodity transport and passenger-miles in the case of passenger travel, more accurately reflects the increase in transportation during 1942 than carloadings or other commonly used indexes. This is because the Commerce index takes account of both the increased length of hauls during the year and the larger loads per freight car.

Electric Power

Supplies of electric power, after falling well below requirements in certain areas during 1941, were generally higher during the year just closed. Such shortages as occurred were localized and temporary. Power production, for the country as a whole, increased about 13 percent over the previous year, but the geographical pattern of the increases varied in accordance with the uneven incidence of demand, which came increasingly from war plants. Industrial consumption accounted for the bulk of the advance in power requirements, although residential and commercial use also increased moderately, as may be seen from table 14. The close relationship of electric power output to the general level of industrial production, which is apparent from chart 12, indicates the importance of this source of motive power to the war program.

Chart 12.—Electric Power and Industrial Production, without Adjustment for Seasonal Variations



¹ Data include electric energy produced by electric railways, electrified steam railroads, and publicly-owned noncentral stations, and that sold by industrial (mining and manufacturing) plants; industrial plants selling less than 10,000 kilowatt-hours a month are not included. Data in chart on page 2 do not include the first three items mentioned in this note.

Sources: Index of electric power production computed from data of the Federal Power Commission; index of industrial production, Board of Governors of the Federal Reserve System.

The ability of the electric-power industry to cope more effectively with the larger demand during 1942 was dependent upon a number of factors. Net additions to capacity, amounting to roughly 2,700,000 kilowatts, or 6 percent, were made during the year, in spite of the fact that plans for capacity additions had to be curtailed somewhat because of metal shortages. This constituted the largest capacity expansion since 1925. Likewise some new transmission lines were brought into use, thus permitting a better distribution of available power, but this program also suffered curtailment under War Production Board limitations. In spite of the increased demands for electric power during 1942, peak loads were only 5 percent above the previous year so that the addition of new capacity raised utility reserves by 1,000,000 kilowatts or more than 10 percent.

The chief factor in the improvement in the power situation was the fact that multiple-shift operations in

Table 14.—Sales of Electric Power to Ultimate Consumers

[Billions of kilowatt-hours]

Item	1940	1941	1942
Total ¹	118.6	140.1	158.8
Commercial and industrial	81.9	100.7	115.4
Large light and power	59.6	76.1	88.0
Small light and power	22.4	24.6	27.4
Residential or domestic	23.3	25.1	27.0
Railways and railroads	5.9	6.1	6.6
Other public authorities	2.7	3.1	4.0
Rural	2.0	2.4	2.9
Municipal	2.0	2.1	2.0
Interdepartmental	.7	.6	.9

¹ Individual items will not necessarily add to totals because of rounding.

Source: Edison Electric Institute.

industrial plants produced a more even distribution of load requirements, thus permitting more effective utilization of available generating capacity. In addition water-supply conditions in predominately hydroelectric areas were relatively more favorable.

Foreign Trade

The flow of foreign trade during 1942 changed markedly both in structure and in geographical distribution under the world-wide impact of war conditions. Specific details concerning this changing pattern of our international trade cannot be published but the over-all picture may be described briefly.

Exports registered a sharp expansion during the year just closed but the increase was entirely accounted for by larger Lend-Lease shipments. Exports other than Lend-Lease declined. In aggregate terms the increase in value of total exports approached 60 percent but rising prices as well as increased physical volume contributed to this advance.

Imports declined sharply during the year, primarily because of the loss of many of our normal sources of supply for products such as rubber, silk, tin, and others which had previously been imported in large volume. Shortages of shipping space also cut the volume of imports greatly.

Lend-Lease an Increasing Share of Foreign Trade.

Lend-Lease assistance to the Allied nations rose rapidly during 1942 and became an increasingly large share of total exports. Total Lend-Lease transfers from the start of the program through November 30, 1942,

Table 15.—Dollar Volume of United States Foreign Trade

[Millions of dollars]

Item	1939	1940	1941	1942 (11 months)	Percent change 11 months 1942 over 11 months 1941
Total exports, including reexports	3,177	4,023	5,146	7,019	+56.2
Exports of United States merchandise	3,123	3,934	5,019	6,954	+58.6
General imports	2,318	2,625	3,345	2,385	-20.5
Imports for consumption	2,276	2,541	3,222	2,376	-17.6

Source: Bureau of the Census, Department of Commerce.

amounted to nearly 7.5 billion dollars. Of this, nearly 2.4 billions were transferred during the final quarter of the period, and more than 6.5 billion during our first year of war.⁷ By October 1942 Lend-Lease shipments accounted for 70 percent of total United States exports.

Exports of military items under Lend-Lease grew steadily during 1942 both in dollar volume and as a proportion of total Lend-Lease exports. They amounted to 56 percent of that total during October 1942. At this rate an estimated 15 percent of our total munitions production was being exported, if account is taken of both Lend-Lease and the much smaller direct purchases by foreign governments. Exports of foodstuffs and of industrial materials, chiefly metals, have been increasing in dollar volume but decreasing as a proportion of total Lend-Lease exports during the past year.

By country of destination, approximately 40 percent of Lend-Lease exports during October were sent to the United Kingdom, as against 21 percent to the Soviet Union and 39 percent to all other areas, including the Middle and Far East.

As the size of our armed forces abroad increased, reverse Lend-Lease, in the form of subsistence and other products for military use, became increasingly important during 1942. Altogether, Lend-Lease must be regarded as a unique evidence of United Nations' cooperation and unity.

National Income

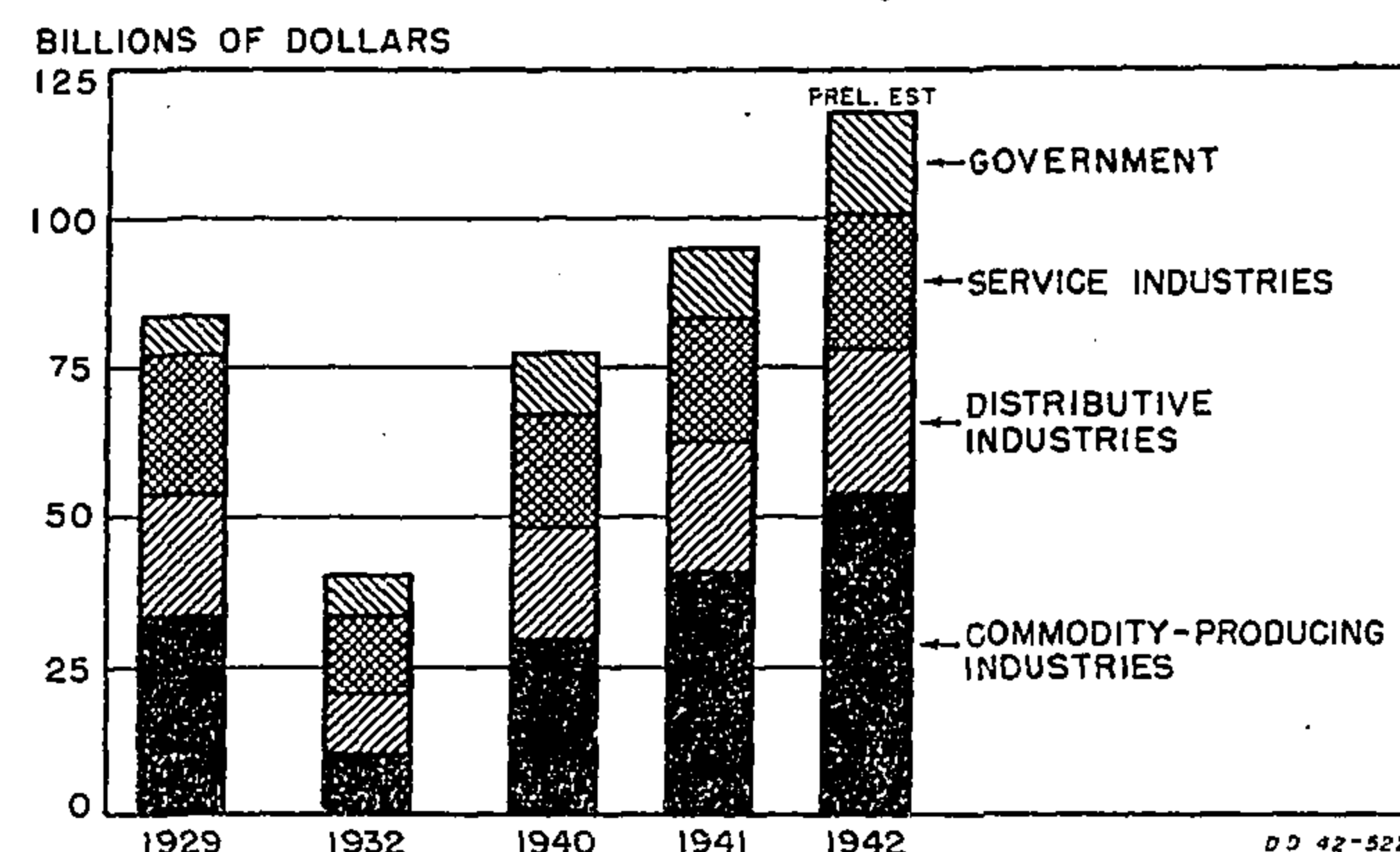
The extensive changes in output and in economic activity which are reported in the preceding pages may all be summarized conveniently in terms of national income statistics. These statistics furnish comprehensive measurements of the economic expansion which occurred during 1942 under the stimulus of the war program. For example, the whole national income, measuring the net value of goods and services produced, increased sharply to a record total of more than 117 billion dollars for the year. Virtually all major industrial groups contributed more or less substantially to the income expansion during 1942. Income originating in agriculture expanded more than 40 percent over the previous year as did income originating in Government. Manufacturing registered a 30 percent gain while both construction and transportation accounted for more than 20-percent increases each. Other major industrial groups made somewhat smaller gains.

The contribution of these industry groups to the national income rise reflected the changes in their volume of output as well as changes in prices.

In the case of agriculture, expanded Lend-Lease, military, and civilian demands prompted a record volume of production. This was accompanied by a steady upward trend of agricultural prices since these

⁷ Transfers under Lend-Lease are made before goods are loaded aboard ship. Consequently an estimated 10 percent of goods transferred have not actually been shipped. See the President's Seventh Report to Congress on Lend-Lease Operations, p. 8.

Chart 13.—National Income by Major Industrial Groups



Source: U. S. Department of Commerce.

were perhaps the freest from control among all elements of the price structure.

In Government the increased generation of income resulted chiefly from the addition of personnel to military agencies, as their functions expanded to meet the wartime emergency. In manufacturing, transportation, and construction the income advances flowed chiefly from the record increases in the volume of activity previously discussed.

Table 16.—National Income by Distributive Shares

[Billions of Dollars]

Item	1939	1940	1941	1942
Total national income ¹	70.8	77.3	94.7	117
Total compensation of employees.....	48.3	52.8	65.0	83
Salaries and wages.....	44.4	49.1	61.3	80
Other labor income.....	3.8	3.7	3.6	3
Entrepreneurial income and net rents.....	13.3	13.8	17.4	22
Interest and dividends.....	8.8	8.4	9.9	10
Corporate savings.....	.5	1.2	2.6	3

¹ All figures for 1942, which are preliminary, have been rounded to the nearest billion.

² Components will not necessarily add to totals because of rounding.

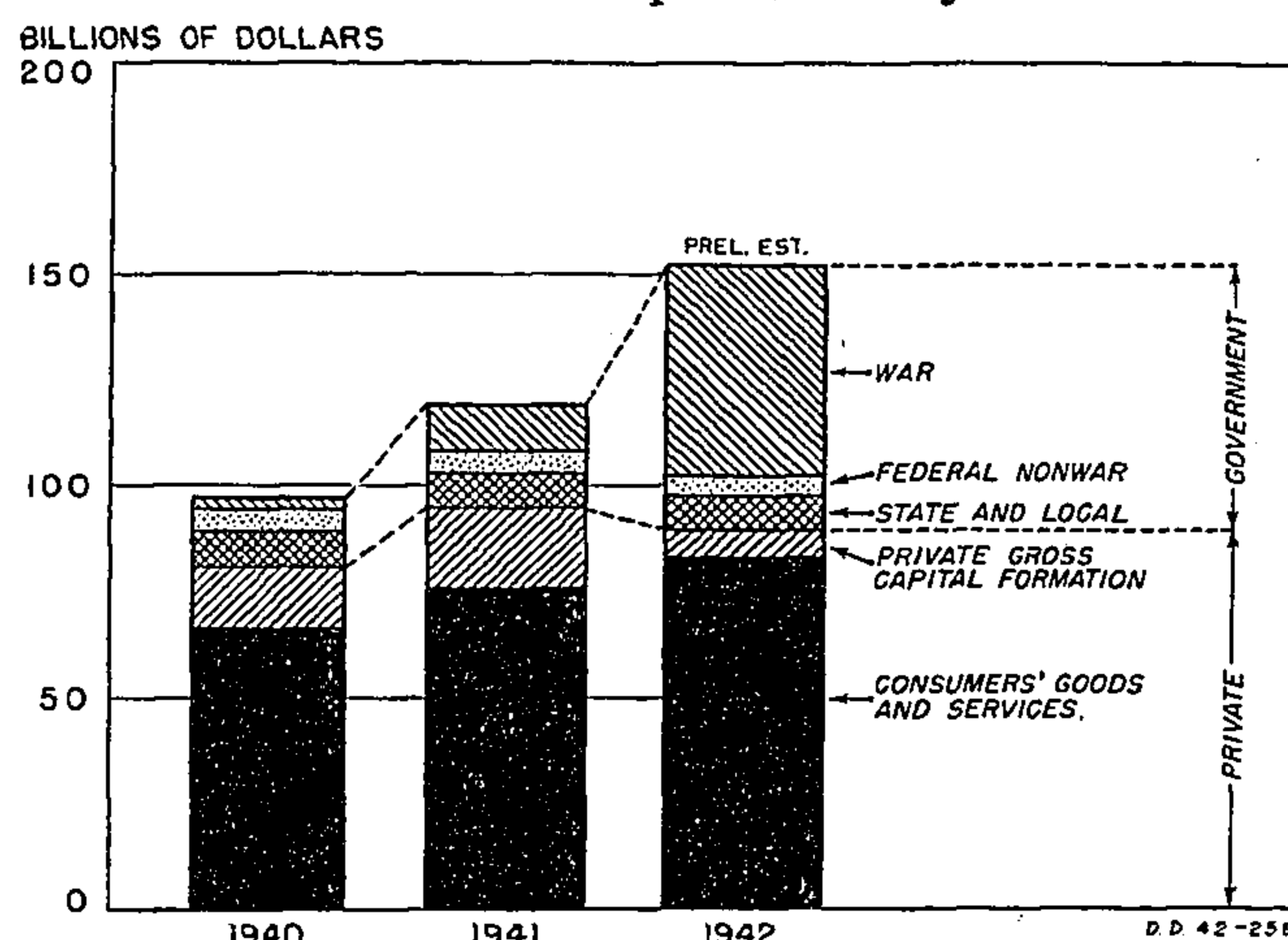
Source: U. S. Department of Commerce.

When analyzed by distributive shares rather than by industrial origin, virtually all of the 1942 income expansion is seen to be the result of increases in wages and salaries, with entrepreneurial income also contributing slightly to the expanded income flow.⁸ Property income, measured after taxes, made virtually no gain during the year. This concentration of the 1942 income rise among wage and salary earners suggests that important changes may have occurred in the size distribution of consumer income. Reliable data for answering this question unequivocally, however, are lacking.

The gross national product, for certain purposes a comprehensive measure of the total value of output more useful than the national income, increased approximately 28 percent during 1942 to total more than 150 billion dollars for the year. Of this 32-billion dollar

⁸ Entrepreneurial income, or the net income of unincorporated business establishments, contains elements both of wages and of profit. Since this type of income is generated chiefly in the trade and service industries where small firms are numerous and where much labor is performed by proprietors, it is likely that the wage element bulks large in total.

Chart 14.—Gross National Expenditures by Use of Product



Source: U. S. Department of Commerce.

gain in gross national product, it is roughly estimated that at least a third and possibly more was accounted for by rising prices, with the remainder representing higher physical volume. Determination of the true increase in physical volume of all finished output during 1942 is difficult because of the marked changes in the composition of commodity flow which occurred under the impact of the war program, and also because of the lack of satisfactory price series covering munitions.

Table 17.—Gross National Product or Expenditure

[Billions of dollars]

Item	1940	1941	1942 ¹
Gross national product or expenditure.....	97.1	119.4	152
Government expenditures for goods and services.....	16.3	24.6	62
Federal Government.....	8.0	16.4	54
War.....	2.8	11.2	50
Percent war to total national product.....	3	9	33
Other Federal Government.....	5.2	5.2	4
State and local government.....	8.3	8.2	8
Output available for private use.....	80.8	94.9	90
Private gross capital formation.....	14.6	19.1	8
Construction.....	4.5	5.5	3
Producers' durable equipment and other.....	10.1	13.6	5
Consumers' goods and services.....	66.2	75.7	82
Durable goods.....	8.3	10.3	7
Nondurable goods and services.....	57.9	65.5	75

¹ Estimates for the year, which are preliminary, have been rounded to the nearest billion and will not necessarily add to the total.

Source: U. S. Department of Commerce.

The growth of war expenditures, amounting to nearly 40 billion dollars during the year, was more than responsible for the entire dollar increase in gross national product.⁹ Private capital formation was cut to less than half its 1941 volume. Much of this shrinkage represented, of course, merely a shift from private to public financing, so that total capital formation both on private and public account did not necessarily decline.

⁹ It should be borne in mind that the war expenditures which are compared with gross national product represent all those, and only those, Federal Government war outlays, whether within or outside the budget, which constitute a draft upon output produced in continental United States. Thus while expenditures by subsidiaries of the Reconstruction Finance Company are included, offshore expenditures are excluded. For a more complete explanation of this comparison, see the March, May, and August 1942 issues of the Survey.

Consumer Expenditures

Despite the scale on which new production of certain consumption commodities was reduced during 1942, inventories were so large that the flow of consumer goods to individuals declined only slightly in real terms from the peak level of the previous year. Whereas in 1941 the total flow of consumption commodities and services had been nearly 76 billion dollars, in 1942 the total, valued in 1941 prices, declined only to 74 billions. Significant changes occurred in the composition of this commodity flow, as durable goods generally declined, whereas food, apparel, and services registered slight advances.

Maintenance of the flow of consumer goods almost at peak levels, did not, however, prevent the occurrence of an increasing number of shortages, as consumer demand, fed by the rising tide of income payments flowing from war production, advanced steadily. In dollar terms, consumer expenditures, including the consumption of institutional residents, reached a level of about 82 billion dollars, as against the figure of less than 76 billion for 1941. Had it not been for the effectiveness of price control, the 1942 figure would undoubtedly have been much higher, since the 82-billion dollar expenditure is considerably below the proportion of their incomes that consumers have spent in previous years.

Food purchases appear to have increased more than 20 percent in dollar terms, while expenditures for clothing, apparel, and for services related to apparel also increased appreciably. The drop in consumer expenditures for durable goods was fairly well spread over most commodity groups. Large inventories of some products such as jewelry, sports equipment, and household utensils, however, prevented any decrease in consumer expenditures for these products as compared with 1941.

In real terms the pattern of consumer expenditures, shown in table 18, changed appreciably during the year as a result of the relative scarcity of certain products, the uneven increases in consumer incomes, and the changes in living habits brought about by the war.

The changing pattern of consumer expenditures during

Table 18.—Flow of Finished Commodities and Services to Consumers, by Selected Groups

[Billions of 1941 dollars]

Item	1939	1940	1941	1942 ¹
Total consumption commodities and services ²	65.9	69.5	75.8	74
Electrical goods.....	.9	1.1	1.4	1
Furniture and furnishings.....	3.6	4.0	4.7	4
Fuels.....	1.5	1.7	1.8	2
Automobiles and automotive products.....	4.7	5.4	5.9	3
Apparel and accessories.....	7.0	7.2	8.1	8
Food, tobacco, meals, and beverages.....	22.5	23.6	25.1	26
Other commodities and services.....	25.6	26.6	28.8	30

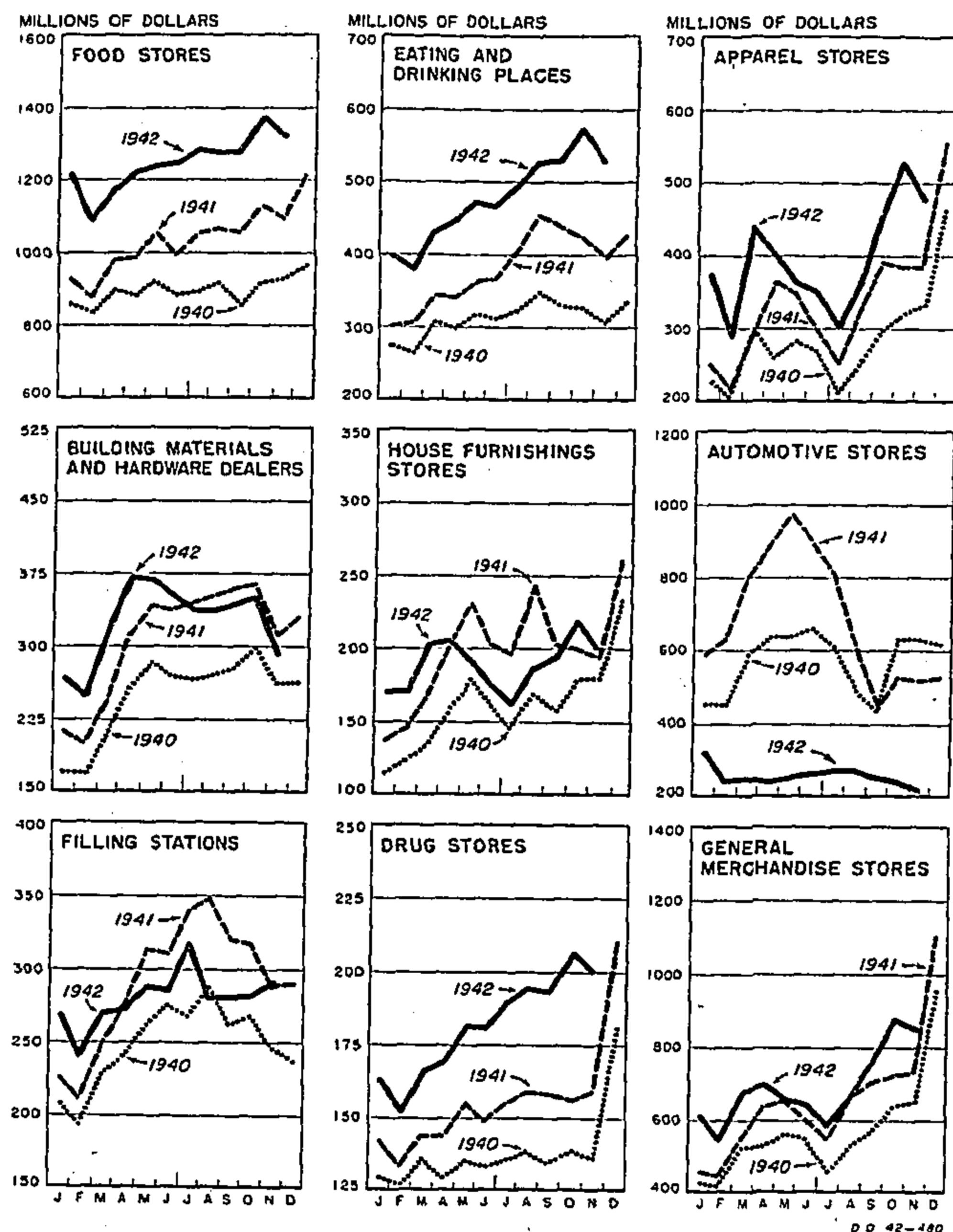
¹ Figures for 1942, which are preliminary, have been rounded to the nearest billion, and will not necessarily add to the total.

² Including institutional, but excluding governmental purchases.

Source: U. S. Department of Commerce.

1942, as may be seen from chart 15, was also reflected in sales of retail stores. Sales of food stores and of eating and drinking places ran well above their 1941 levels, reflecting chiefly the advance in consumer buying power over the previous year. At apparel stores the increase in sales was less marked though clear. Sales at house-furnishing stores ran above preceding year levels for the first quarter but slumped during the remainder of the

Chart 15.—Sales of Retail Stores



Source: U. S. Department of Commerce.

year as goods shortages began to appear. Automotive sales were well below those of 1941 because of stoppage of automobile production and rationing of tires and gasoline. Filling-station sales also reflected the gasoline rationing. Drug stores appear to have benefited as much as any retail trade group from the income expansion, and sales ran far above the corresponding months of 1941. Trends in general merchandise sales were mixed although a small gain for the year is apparent.

In general the supply of consumption commodities during 1942 exceeded all expectations. The smallness of the cut which occurred in spite of the extensive diversion of resources from the consumer-goods industries is a tribute to the economic potential of the American economy, as well as a significant commentary upon the gradualness of our war mobilization.

Despite the heavy volume of consumer purchases during 1942 and the stoppage of production of many types of consumer goods, inventories of merchandise

Table 19.—Sales of Retail Stores, by Kinds of Business, 1939-42

[Billions of dollars]

Item	1939	1940	1941	1942
All retail stores.....	42.0	45.8	54.2	58.2
Durable goods stores.....	10.4	12.2	14.9	9.9
Nondurable goods stores.....	31.7	33.7	39.3	46.3
By kinds of business:				
Food stores.....	10.2	10.8	12.4	15.2
Eating and drinking places.....	3.5	3.8	4.6	5.8
Apparel stores.....	3.3	3.4	4.1	5.0
Filling stations.....	2.8	3.0	3.5	3.3
Building materials and hardware dealers.....	2.7	3.0	3.7	3.8
Household furnishing stores.....	1.7	1.9	2.4	2.3
Automotive stores.....	5.5	6.8	8.2	3.0
Drug stores.....	1.6	1.6	1.9	2.3
General merchandise stores.....	6.5	6.8	7.8	8.8
Other retail stores.....	4.2	4.7	5.6	6.7

NOTE.—Durable goods stores include building materials and hardware, household furnishings, automotive, and jewelry (included in other retail) stores. Nondurable goods stores include all other stores. Due to rounding, group figures do not necessarily add to totals for all retail stores. Data for 1942 are preliminary estimates.

Source: U. S. Department of Commerce.

in retail and wholesale trade held up remarkably well in dollar volume throughout the year, as may be seen from table 20. At the close of the third quarter, total inventories in retail and wholesale trade amounted to 11.6 billion dollars, valued however in prices somewhat higher than the prices of goods carried in inventory a year earlier. The decline in wholesale inventories began in the second quarter, while the turning point in retail inventories came a quarter later, reflecting of course the transfer at wholesale of many irreplaceable goods. Both retail and wholesale inventories decreased sharply during the final quarter of the year as a result of the record volume of Christmas trade.

Table 20.—Value of Inventories in Wholesale and Retail Trade

[Millions of dollars]

Year and quarter	Total	Wholesale	Retail
1940:			
I.....	8,938	3,738	5,200
II.....	8,977	3,581	5,396
III.....	9,131	3,745	5,386
IV.....	9,279	3,730	5,549
1941:			
I.....	9,806	4,078	5,728
II.....	10,333	4,220	6,113
III.....	10,807	4,384	6,423
IV.....	11,334	4,697	6,637
1942:			
I.....	11,986	4,899	7,087
II.....	12,128	4,632	7,496
III.....	11,641	4,245	7,396

Source: U. S. Department of Commerce.

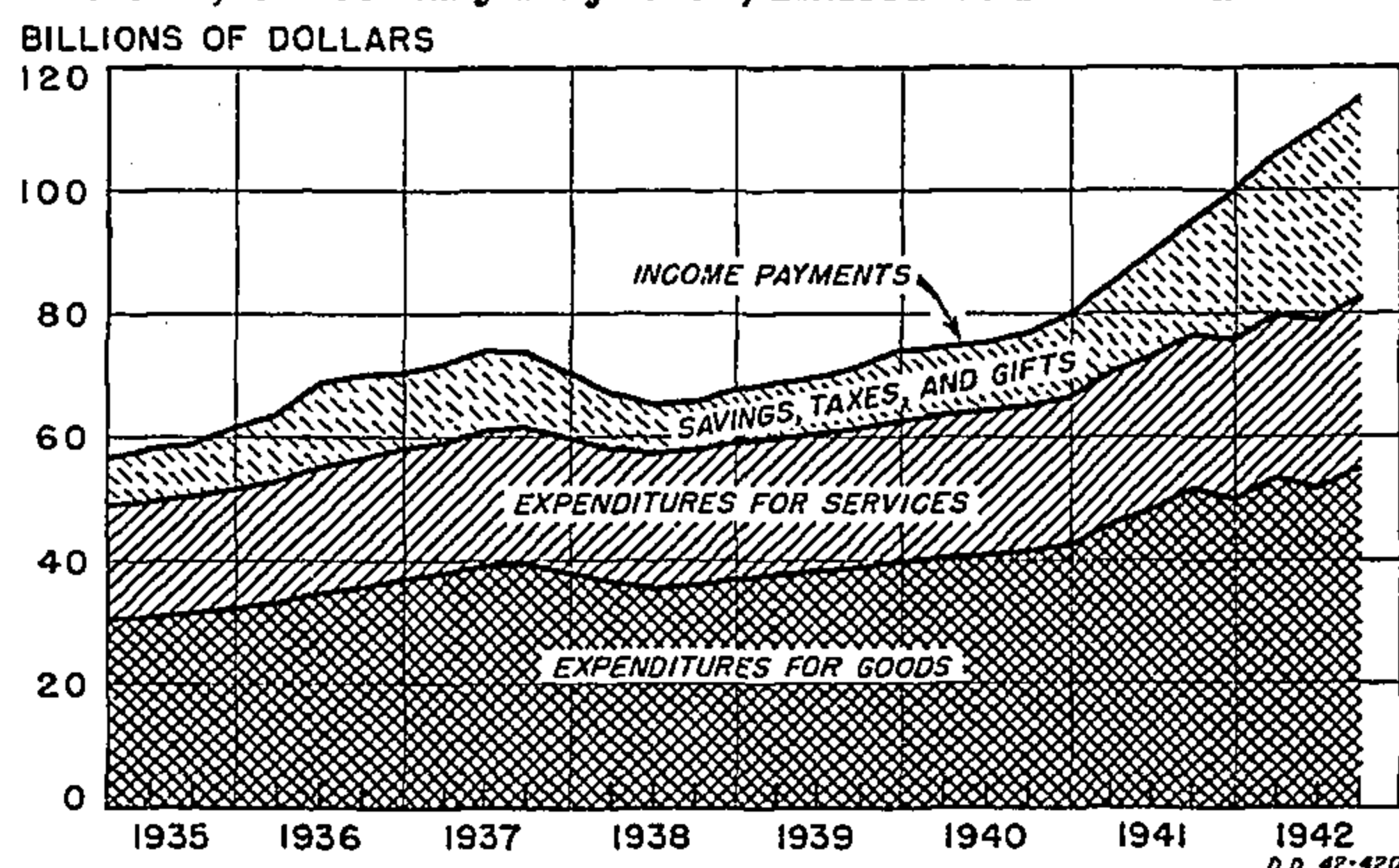
Late in the year, inventory controls for large wholesalers and retailers were announced, to take effect in the second quarter of 1943. These controls, being based on inventory-sale ratios during past periods, will probably not be the chief factor forcing contraction of inventories in the aggregate, although they undoubtedly will prompt a better distribution of available stocks among outlets.

Consumer Income and Savings

The steady growth of consumer income during 1942 stemmed from at least three chief factors. One was

the general increase in employment in war-stimulated industries coupled with the steady upgrading of workers as man-power became increasingly scarce. A second was the record growth of farm earnings. The third was the upward surge of wage rates and earnings which remained largely uncontrolled throughout the greater part of the year. As a result principally of these factors, income payments to individuals advanced to record levels, totaling approximately 114 billion dollars for the year. Higher tax payments absorbed only a small

Chart 16.—Income Payments to Individuals by Use: Quarterly Data, Seasonally Adjusted, Raised to Annual Rate



Source: U. S. Department of Commerce.

fraction of the increase, and consumer dollar expenditures were prevented from rising higher by goods shortages, price control, and rationing. Hence much of the income rise was naturally diverted into savings, which are estimated at approximately 26 billion dollars for the year or roughly double their 1941 volume.

The outstanding fact about these savings is their predominately liquid character. This is evident from the details presented in table 21. The liquidity is, of course, partly a result of the abnormal or semi-automatic character of a large part of the current savings during the year.

Table 21.—Net Savings of Individuals by Use of Funds

[Billions of dollars]

Fund	1940	1941	1942 ¹
Total net savings of individuals.....	7.4	12.9	26
Current savings held as currency or as bank deposits.....	3.6	5.6	11
Current savings invested in Government War bonds, series D and E.....	1.0	1.8	6
Current savings invested in private insurance.....	1.7	2.1	2
Current savings applied to reduce consumer short-term indebtedness.....	-1.2	-.5	4
Current savings held in other forms.....	2.3	3.9	9

¹ Estimates for 1942, which are preliminary, have been rounded to the nearest billion and will not necessarily add to totals.

Sources: Securities and Exchange Commission, U. S. Treasury Department, and U. S. Department of Commerce.

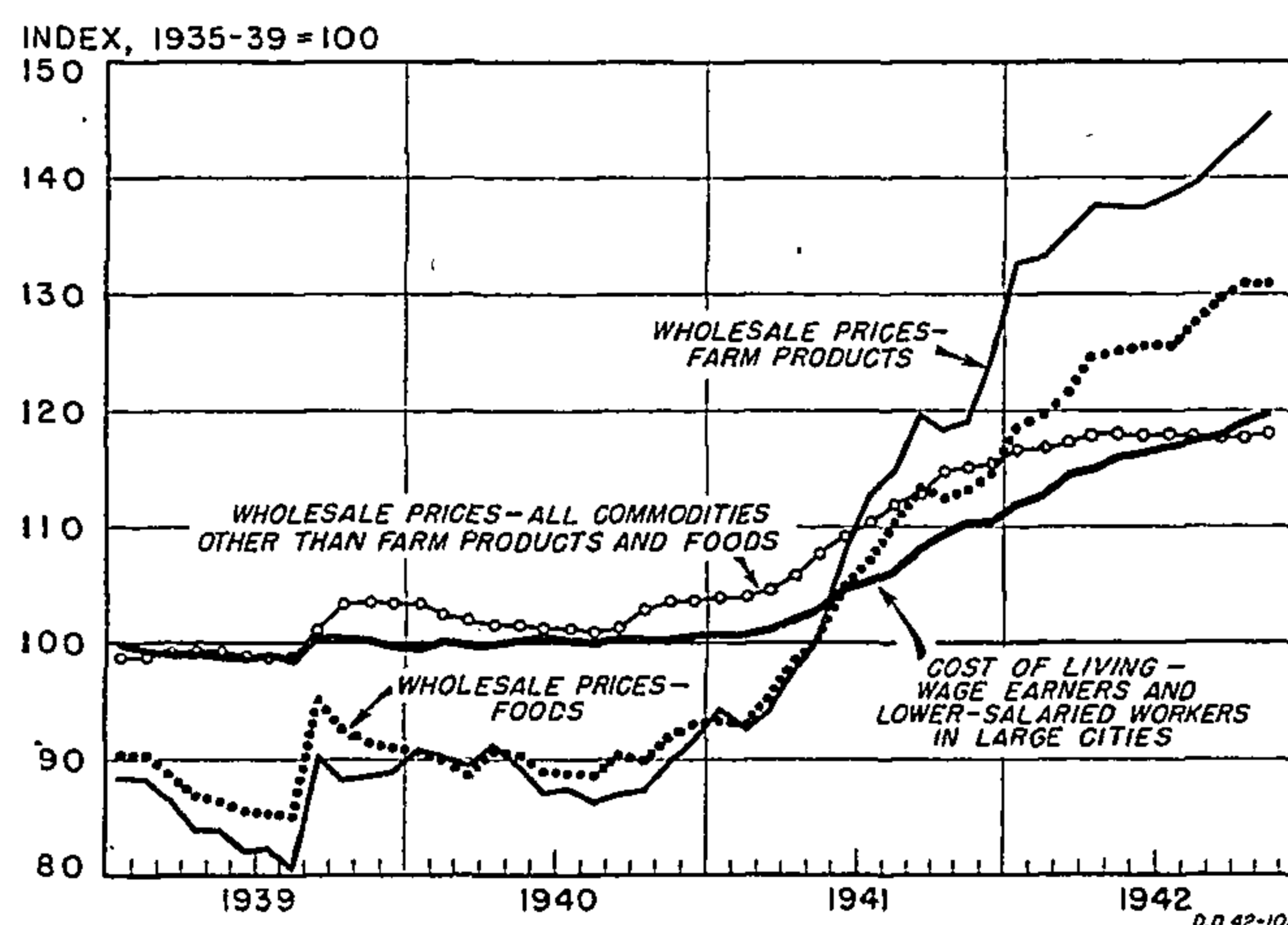
The magnitude of their savings during 1942 is also indicative of the extent to which consumers as a whole have benefited from the price-control program.

Commodity Prices and the Cost of Living

The brisk rise of prices in 1942 brought the average of wholesale commodity prices above the 1929 level. Similarly the cost of living by December had very nearly risen to the 1929 average level.

The price situation has been so exhaustively discussed in the course of the year that bare mention of the governing basic factors will suffice here. In simplest terms it was a case of effective demand outrunning supply at previous lower price levels and forcing prices to move progressively higher throughout the year.

Chart 17.—Wholesale Prices and Cost of Living



Sources: U. S. Department of Labor. Indexes of Wholesale Prices on a 1926 base were recomputed to the 1935-39 base.

The prime factors on the demand side were the record-breaking volume of government and industrial buying and the resultant heavy flow of purchasing power into consumer hands. The large national output during the year made it inevitable that income payments to individuals would be very large. It was, of course, not inevitable that consumers be permitted to retain most of their incomes, as conceivably, it would have been possible to relieve them of bigger income fractions through taxes and bond sales. Inasmuch as this course was not adopted, however, consumer purchasing power flowed freely into retail markets.

The prime factor on the supply side was, obviously, the growing relative scarcity of goods and services available to consumers. Although supplies of some goods were at or near peak levels, they were nonetheless unable to keep pace with purchasing power. Under these circumstances, the prices of many goods and services would undoubtedly have risen much higher than they actually did except for the restrictive influence of price controls and goods allocations. Had consumers been free to dip into their record-breaking savings and bid prices up and had sellers been free to hold goods for sale to the highest bidders, the cost of living might well have risen more nearly twice as much as it actually did during the year.

Table 22.—Indexes of Wholesale Prices, by Economic Classes and by Groups of Commodities

[1928=100]

Class or group	Annual average			November 1940	November 1941	November 1942	Percent increase	
	1940	1941	1942 ¹				Nov. 1940–Nov. 1941	Nov. 1941–Nov. 1942
All commodities.....	78.6	87.3	98.6	79.6	92.5	100.3	16.2	8.4
Economic classes:								
Raw materials.....	71.9	83.5	100.1	72.6	90.2	103.9	24.2	15.2
Semimanufactured articles.....	79.1	86.9	92.6	80.7	89.7	92.6	11.2	3.2
Manufactured products.....	81.6	89.1	98.5	82.6	93.8	99.4	13.6	6.0
Farm products.....	67.7	82.4	105.2	68.2	90.6	110.5	32.8	22.0
Grains.....	68.0	76.9	92.2	67.7	84.3	92.8	24.5	10.1
Livestock and poultry.....	69.2	91.6	117.2	69.9	90.6	121.3	29.6	33.9
Commodities other than farm products.....	80.8	88.3	96.9	81.9	92.7	97.9	13.2	5.6
Foods.....	71.3	82.7	99.1	72.5	89.3	103.5	23.2	15.9
Cereal products.....	78.3	80.7	89.3	74.8	85.9	89.5	14.8	4.2
Dairy products.....	77.6	87.3	98.8	82.3	96.3	111.2	17.0	15.5
Fruits and vegetables.....	63.1	67.5	95.0	60.4	77.9	102.0	29.0	30.9
Meats.....	73.3	90.4	111.7	76.2	90.8	112.0	19.2	23.3
All commodities other than farm products and foods.....	83.0	89.0	95.4	84.1	93.5	95.8	11.2	2.5
Building materials.....	94.8	103.2	110.2	98.9	107.5	110.1	8.7	2.4
Lumber.....	102.9	122.5	132.5	117.5	128.7	133.1	9.5	3.4
Chemicals and allied products.....	77.0	84.6	97.0	77.5	89.8	99.5	15.9	10.8
Chemicals.....	85.1	87.2	96.3	85.1	88.3	96.2	3.8	8.9
Oils and fats.....	44.3	77.6	105.4	42.3	92.9	101.5	119.6	9.3
Fuels and lighting material.....	71.7	76.2	78.5	71.9	78.8	79.1	9.6	.4
Petroleum products.....	50.0	57.0	59.7	49.3	60.4	60.7	22.5	.5
Hides and leather products.....	100.8	108.3	117.6	102.3	114.1	117.8	11.5	3.2
Hides and skins.....	91.9	108.4	118.0	101.2	114.0	116.0	12.6	1.8
Housefurnishing goods.....	88.5	94.3	102.6	88.6	100.6	102.5	13.5	1.9
Metals and metal products.....	95.8	99.4	103.8	97.0	103.3	103.8	5.8	.5
Iron and steel.....	95.1	96.4	97.2	95.3	97.1	97.2	1.9	.1
Metals, nonferrous.....	81.3	84.4	85.7	83.9	84.8	86.0	1.1	1.4
Textile products.....	73.8	84.8	96.8	74.5	91.1	97.1	22.3	6.6
Cotton goods.....	71.4	94.2	112.5	73.6	105.4	112.4	43.2	6.6
Rayon.....	29.5	29.5	30.3	29.5	30.3	30.0	2.7	-1.0
Woolen and worsted goods.....	85.7	96.6	109.7	88.8	102.6	111.7	15.5	8.9
Miscellaneous.....	77.3	82.0	89.6	77.5	87.3	90.1	12.6	3.2

¹ Average for January–November.

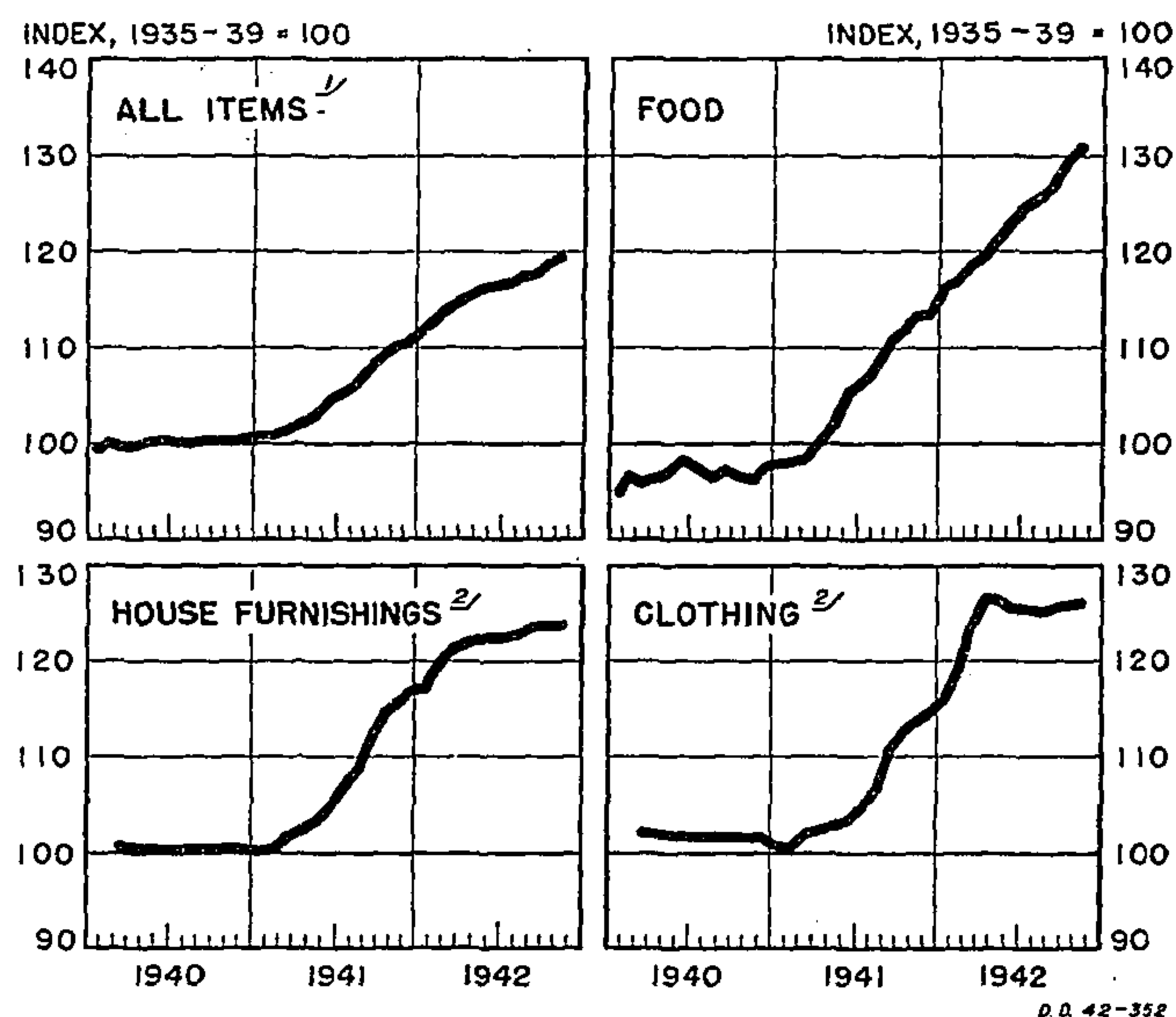
Source: U. S. Department of Labor.

The historic event of the year in the field of prices was, of course, the development of controls. The Nation for the first time undertook to control virtually the entire price level. The attempt was fairly successful. Without it, the price level would unquestionably now be considerably higher than it actually is. The first step was the approval of the Emergency Price Control Act of 1942 on January 30. Under the power conferred upon him by this law, Price Administrator Henderson on April 28 promulgated the General Maximum Price Regulation, effective for most prices in May, which imposed ceilings on the prices of most goods and many services. The ceilings were generally the highest comparable prices charged during March 1942.

The two biggest loopholes in these measures were the exemption of prices of farm products and foods from ceilings below certain high levels, and the omission of any control over wages and salaries.

The next steps were the enactment of the anti-inflation act of October 2, 1942, and the Executive order of October 3 establishing the Office of Economic Stabilization. This law and Executive order empowered the Government to bring the large majority of farm-product prices under ceilings and to control the rise of wages and salaries. Under these laws and Executive orders, the Economic Stabilization Director, the

Chart 18.—Cost of Living of Wage Earners and Lower-Salaried Workers in Large Cities

¹ Includes some items not shown separately in this chart.² Data are for the last month of each quarter through September 1940 and monthly thereafter.

Source: U. S. Department of Labor.

Price Administrator, the War Labor Board and, in the case of farm-product prices, the Secretary of Agriculture, now have probably all the powers of a nonlegislative sort necessary to prevent severe inflation. They can both set ceiling prices and control, or give relief from, the rising costs that might threaten to upset the ceilings. Thus the Government is in a position to fix selling prices, to control basic costs, and to forbid buyers from paying prices higher than the established ceilings.

It is clear that the Government, represented during most of the year chiefly by Price Administrator Henderson, was reasonably successful in keeping prices down—especially in view of the sharp advances that occurred in the prices of farm products and foods exempted from control.

Table 23.—Indexes of Cost of Living

[1935-39=100]

Item	1929	1940	1941	1942	Percent increase	
					1941 from 1940	1942 from 1941
Total.....	122.5	100.2	105.2	116.5	5.0	10.7
Clothing.....	115.3	101.7	106.5	124.3	4.7	16.7
Food.....	132.5	96.6	105.5	123.8	9.2	17.3
Fuel, electricity, and ice.....	112.5	99.7	102.5	105.4	2.8	2.8
Housefurnishings.....	111.7	100.5	108.2	122.1	7.7	12.8
Rent.....	141.4	104.6	105.9	108.5	1.2	2.5
Miscellaneous.....	104.6	101.1	104.0	111.0	2.9	6.7

Source: U. S. Department of Labor, except 1942, which was estimated, on the basis of 11 months' data, by the U. S. Department of Commerce.

But difficult price problems still remain despite the progress toward economic stabilization made in the past year. The basic problem is to win, as nearly as possible, complete public cooperation and acceptance of controls. If price controls are to be fully effective, some-

body—nearly everybody in fact—is going to be affected. The typical reaction is that their impact should always fall on the other fellow. Nearly everyone wants the prices of the things he buys frozen while hoping the prices that determine his income remain free to rise. Stabilization can be had only when all accept the principle that in order to have their cost of living frozen, they must accept income stabilization as well.

Reversal of this principle and acceptance of rising living costs in order to maintain incomes free to rise results, of course, in the familiar spiral of inflation which is just the reverse of stabilization. Without public recognition and acceptance of this basic principle, stabilization can be had only at the cost of an intensive, continuing, Nation-wide enforcement aimed at policing all price transactions. Hence, in the months ahead, the chief effort must be made in the direction of achieving either public acceptance or enforcement.

Another basic problem of price control arises from the fact that, while granting the power of the Government to fix and enforce prices, they must be set just right to avoid undesirable repercussions and to encourage desirable types of production and consumption. Whenever ceiling prices are set at low levels—as they frequently must be in order to check inflation—the stabilization authorities will have to choose among the following alternatives: (a) Maintaining the ceilings and cutting the supply of the goods in question by forcing some producers out of business; (b) raising the ceilings and therefore the price level in order to encourage supply; (c) maintaining the ceilings but granting subsidies or some other relief to producers; (d) maintaining the nominal price ceilings but permitting hidden price advances by such means as quality deterioration, upgrading or trading up; (e) maintaining the ceilings but forcing cost reductions which curtail the income of some group; or (f) any combination of these. Since any one of the alternatives will evoke protests from some interested group, and will influence the production and consumption of goods and services, difficult decisions lie ahead.

There will be other price-control problems, of course, such as the pressure brought by strong blocs to obtain price treatment specially favoring themselves. But whereas the big achievement relating to price control in 1942 was getting the necessary legislation and setting up the mechanism, the big job in 1943 will be to make it work and win public acceptance, even though nearly everyone will be more severely pinched than before.

Finance

The key financial development of the year was the putting into effect of price-level controls. But for that, virtually all financial magnitudes would have been quite different—and higher. Even so, the financial history of the year is packed full of records that are especially noteworthy. For example, a private corporation

arranged a 1-billion dollar bank credit. Congress passed a 7-billion dollar tax bill, the largest in the Nation's history—yet still not large enough. Federal Government total expenditures amounted to nearly 60 billion dollars. Other fiscal and banking developments were in keeping with these.

Table 24.—Budget Expenditures, Calendar Years 1939-42¹

[Millions of dollars]				
Major type	1939	1940	1941	1942
War activities.....	1,358	2,778	12,705	49,860
Agricultural adjustment program.....	967	1,014	728	740
Unemployment relief.....	2,181	1,813	1,513	817
Transfers to trust accounts.....	202	249	385	479
Interest on the public debt.....	971	1,076	1,145	1,452
Debt retirements.....	53	144	100	28
All other.....	3,210	2,734	2,577	2,671
Total.....	8,941	9,803	19,153	56,048
Total, excluding debt retirement.....	8,888	9,659	19,053	56,020

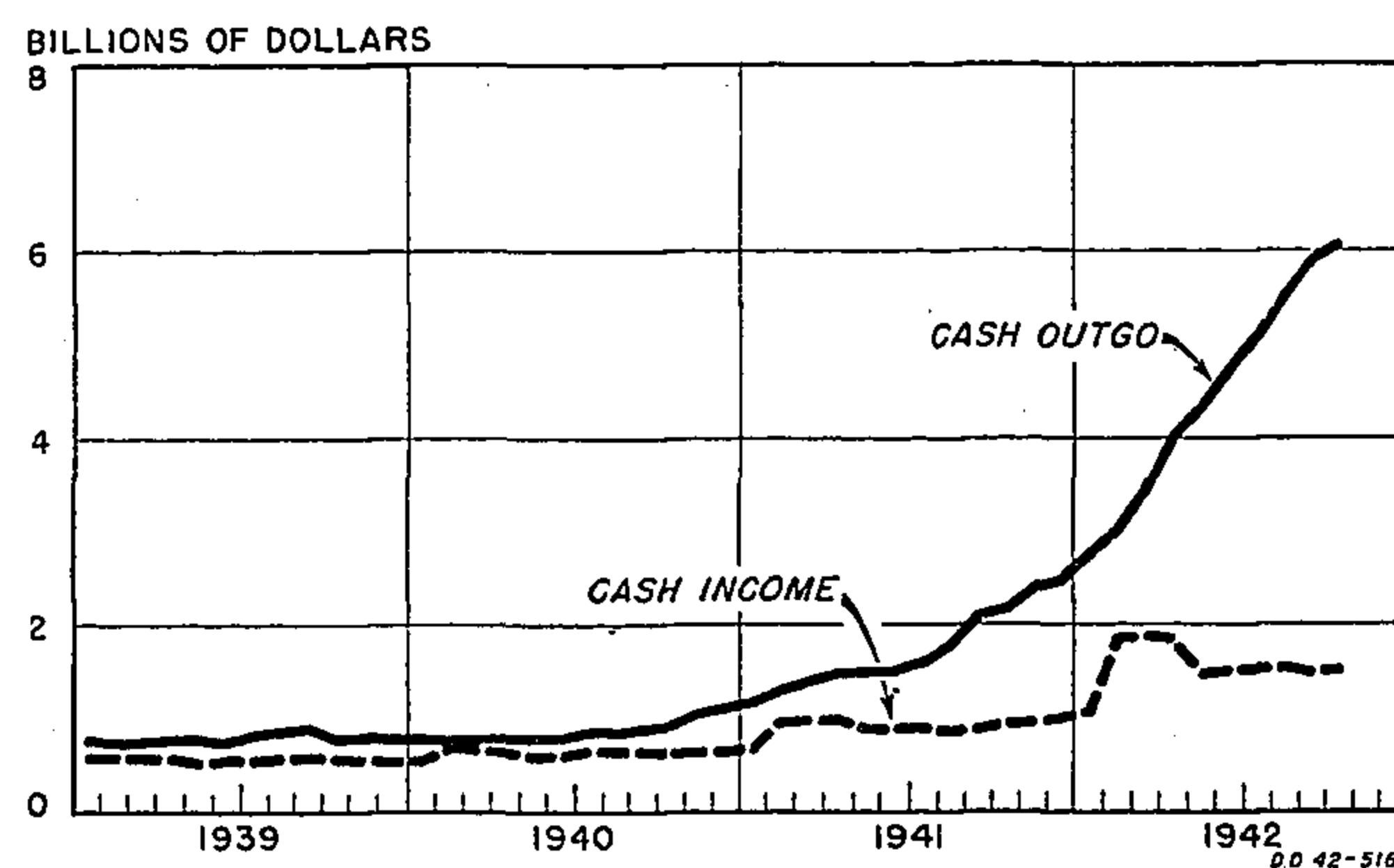
¹ General and special accounts, basis of the Daily Treasury Statement. Classifications are those currently published in the Survey of Current Business. For detailed explanation, see footnotes for page 75 of the 1942 Supplement.

Source: Daily Statement of the U. S. Treasury.

To pick any one of the interrelated and highly dynamic magnitudes concerned as being "given" or predetermined would not be entirely accurate, but the 54 billion dollars of war expenditures come closest to warranting that designation. This is because the Government, on the outbreak of war, mapped out a program to purchase during the year the largest physical volume of war goods and services that could possibly be wrung from the economy. The resulting war outlay became the dominant monetary flow of the year.

Total Federal budget expenditures for 1942 aggregated 56 billion dollars. Government corporations spent in addition nearly 4 billions more, to bring the aggregate Federal outlay to 60 billion dollars. Non-war outlays declined.

Chart 19.—Cash Income and Outgo of the United States Treasury¹



¹ Data are a 3-months moving average centered at second month.

Source: U. S. Treasury Department.

Treasury receipts were practically double those of 1941. The increase was due in part to the higher rates enacted in the two Revenue Acts of 1940 and the

Revenue Acts of 1941 and 1942. The sharp rise in the 1942 national income, however, was also a major contributing factor as it expanded the tax base very considerably.

Table 25.—Budget Receipts, Calendar Years 1939-42¹

[Millions of dollars]

Item	1939	1940	1941	1942
Income taxes ²	1,851	2,366	4,253	11,068
Employment taxes.....	783	873	1,036	1,329
Miscellaneous internal revenue.....	2,308	2,585	3,352	4,350
Customs.....	333	330	438	323
Other receipts.....	210	263	534	317
Total receipts.....	5,485	6,416	9,612	17,387
Less: Net appropriation to Federal old age and survivors insurance trust fund.....	566	582	763	985
Net receipts.....	4,919	5,834	8,849	16,403

¹ General and special accounts, basis of the Daily Treasury Statement.

² Includes individual income taxes, corporate income and excess profits taxes, miscellaneous profits taxes, unjust-enrichment tax, declared value-excess profits taxes, and taxes under the limiting provisions of the Vinson Act.

Source: Daily Statement of the U. S. Treasury.

The classification of receipts in table 24 shows the growing importance of income taxes as a source of Federal revenue. Each of the last three regular revenue acts has reduced exemptions under the individual income tax and increased the rate of tax. The second Revenue Act of 1940 introduced the excess profits tax on corporate income. As a result of this trend, it is expected that three-fourths of the Treasury's net budget receipts in the fiscal year 1943 will consist of revenue from income taxes. The long-debated Revenue Act of 1942 (October) continued this trend by increasing corporate income taxes (mainly the excess profits tax) by 1.3 billion dollars (net), and individual income taxes by 5 billion (net). All other taxes were increased only some 0.6 billion.

Table 26.—Public Debt of the United States Government and Guaranteed Obligations Outstanding, as of December 31, 1941 and 1942

[Millions of dollars]

Item	Dec. 31, 1941	Dec. 31, 1942	Increase
Public debt:			
Public issues:			
Bonds:			
United States savings bonds ¹	6,140	15,050	8,910
All other bonds.....	33,860	49,818	15,958
Notes:			
Regular series.....	4,831	8,697	3,866
National defense series.....	1,166	1,166	0
Tax series.....	2,471	6,384	3,913
Certificates of indebtedness.....		10,534	10,534
Bills.....	2,002	6,627	4,625
Special issues.....	6,981	9,032	2,051
Non-interest-bearing debt.....	487	862	375
Total public debt².....	57,938	108,170	50,232
Guaranteed obligations not owned by the Treasury.....	6,324	4,301	-2,023
Total public debt and guaranteed obligations.....	64,262	112,471	48,209

¹ At current redemption values except series G which is stated at par.

² Includes \$1,278,000,000 as of Dec. 31, 1941, and \$5,201,000,000 as of Dec. 31, 1942, advanced to Government agencies for which their obligations are owned by the Treasury.

Source: Daily Statement of the U. S. Treasury.

An interesting feature of the 1942 Revenue Act is the introduction of the principle of compulsory saving both for corporations and for individuals. Ten per-

cent of the excess profits tax paid is refundable to corporations after the war, as is a portion of the Victory Tax on individual income. In either case the refund can be taken at the end of the year if sufficient savings in certain prescribed forms have been made.

Notwithstanding the doubling of Treasury receipts, outlays outran them to a degree sufficient to result in a deficit of 43 billion dollars, of which nearly 4 billion was for the account of Government corporations. This unparalleled deficit, along with the increase in the Treasury's general-fund balance of approximately 5 billion, forced the gross public debt up by 50 billion dollars to a total of 108 billion, an increase of 87 percent during the year. This deficit and debt increase were, of course, due to the lag of revenue legislation and collections behind the swift pace of expenditures dictated by the war effort. The technical factors governing the movements of the Federal debt during the year are summarized in table 27.

Table 27.—Factors of Increase in the Public Debt, Calendar Years 1941 and 1942

[Millions of dollars]

Item	1941	1942
Budget expenditures, excluding debt retirement.....	19,053	56,020
Net receipts.....	8,848	16,403
Excess of budget expenditures.....	10,204	39,618
Trust accounts, etc., excess of expenditures ¹	1,077	3,631
Increase in general-fund balance.....	1,632	6,983
Increase in the public debt.....	12,913	50,232
Public debt, beginning of year.....	45,025	57,938
Public debt, end of year.....	57,938	108,170

¹ Reflects effects of financing Government corporations through the Treasury Department.

Source: Daily Statement of the U. S. Treasury.

Another key financial datum of 1942 was the 20 billion dollars in round figures of Government securities purchased by the commercial banks. The absorption of this block of bonds represented the outstanding impact of the Treasury's fiscal operations on the commercial banking system. Principally as a result, the deposits of these banks rose about 15 billion dollars—the largest yearly increase in American banking annals.

Date	All banks, except mutual savings banks				Currency in circulation (billions of dollars)	
	Government security holdings (billions of dollars)		Deposits, excluding interbank (billions of dollars)			
	Amount	Change during year	Amount	Change during year	Amount	Change during year
Dec. 31, 1940.....	18		54		9	
Dec. 31, 1941.....	22	4	60	6	11	2
Dec. 31, 1942.....	42	20	75	15	15	4

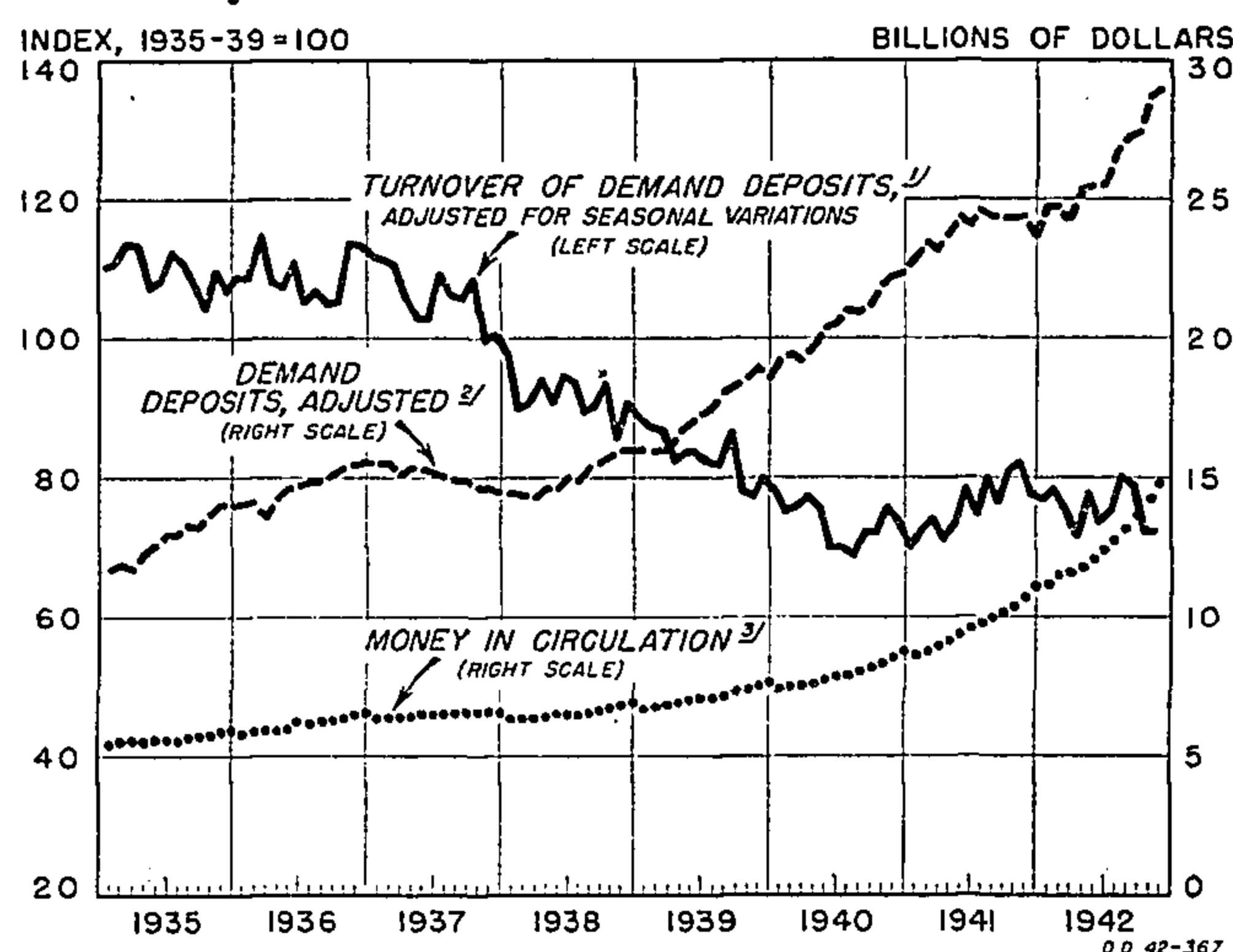
▷ Preliminary estimate.

Source: Board of Governors of the Federal Reserve System.

A figure closely allied to the deposit increase was the record-breaking jump in currency in circulation. Not always is there such a close correspondence between

Government borrowing from banks and the increase in total deposits and money in circulation. In the year just ended, however, there can be no doubt of the close connection between the two. Neither can there be much doubt that this record-breaking inflation of the circulating medium would not have occurred had the \$20-billion block of bonds been purchased by individuals out of their savings. So much currency and bank credit in circulation clearly represents dangerous inflationary ammunition. With more and perhaps even larger in-

Chart 20.—Demand Deposits and Turnover of Demand Deposits in Reporting Member Banks in 101 Leading Cities, and Money in Circulation



¹ Index is based upon relationship between debits to individual accounts (monthly total raised to an annual rate) and monthly average of Wednesday demand deposits.

² Data are deposits other than interbank deposits and United States Government deposits, less cash items reported as on hand or in process of collection; figures are for Wednesday nearest end of month.

³ Data are as of end of month.

Sources: Demand deposits, Board of Governors of the Federal Reserve System; turnover of demand deposits, Federal Reserve Bank of New York; money in circulation, U. S. Treasury Department.

creases of the same kind in prospect, it is to be hoped that price controls will function effectively enough to limit inflationary tendencies.

Another significant banking development was the continued decline in excess bank reserves. This took the commercial banks closer to the point where, when their excess reserves are exhausted, they will have to rely much more heavily on the Federal Reserve banks to support their outstanding deposits. The factor chiefly responsible for the decline in excess reserves was, as can be seen in table 28, the deposit increase that forced up required reserves.

The Federal Reserve banks themselves made central-bank history by expanding their outstanding credit in the later months of the year to a new peak—higher even than that reached in 1920 at the crest of World War I inflation. The expansion was accomplished by Federal Reserve purchases of Government securities amounting to about \$3.7 billion which were, in effect, paid for with Federal Reserve notes to satisfy the urgent public demand for currency. This does not

Table 28.—Factors Affecting Total and Excess Reserves of Member Banks, 1942

[Millions of dollars]

Item	Dec. 31, 1941	Dec. 31, 1942	Net change
Factors of increase:			
Monetary gold stock.....	22,737	22,726	-11
Treasury currency outstanding.....	3,247	3,649	+402
Federal Reserve bank credit outstanding.....	2,361	6,679	+4,318
Nonmember deposits and other Federal Reserve accounts.....	1,651	1,534	-117
Total.....			+4,592
Factors of decrease:			
Treasury cash.....	2,215	2,192	-23
Treasury deposits with Federal Reserve banks.....	867	799	-68
Money in circulation.....	11,160	15,412	+4,252
Total.....			+4,161
Reserve balances.....	12,450	13,117	+667
Required reserves.....	9,365	11,129	+1,764
Excess reserves.....	3,085	1,988	-1,097

Source: Board of Governors of the Federal Reserve System.

account for the entire expansion of currency in circulation, however, and it is clear that the sharp increase in income payments to individuals would in any case have necessitated some currency expansion.

These operations naturally influenced the reserve position of the Reserve banks. By year-end, the reserve ratio of the combined Federal Reserve banks had declined about 15 points over that of the previous year to around 76 percent. Their reserve holdings are tremendous, of course, and their position very strong indeed.

Table 29.—Stock Prices and Sales and Corporate Earnings

Item	1937	1938	1939	1940	1941	1942
Total (402 stocks), 1935-39=100.....	117	88	94	88	80	69
Industrials (354 stocks).....	118	90	95	88	80	71
Public utilities (28 stocks).....	110	86	99	96	81	61
Railroads (20 stocks).....	130	70	75	71	71	66
Shares sold on all registered exchanges (monthly averages in millions).....	70	45	39	31	26	¹ 17
Corporate net income before taxes (billion dollars).....	5.2	2.6	5.4	8.0	13.8	² 18.8
Federal income and excess profit taxes.....	1.3	0.9	1.2	2.5	6.6	² 12.0
Corporate net income after tax.....	3.9	1.7	4.2	5.5	7.2	² 6.8

¹ 11-months' average.

² Estimated by Department of Commerce.

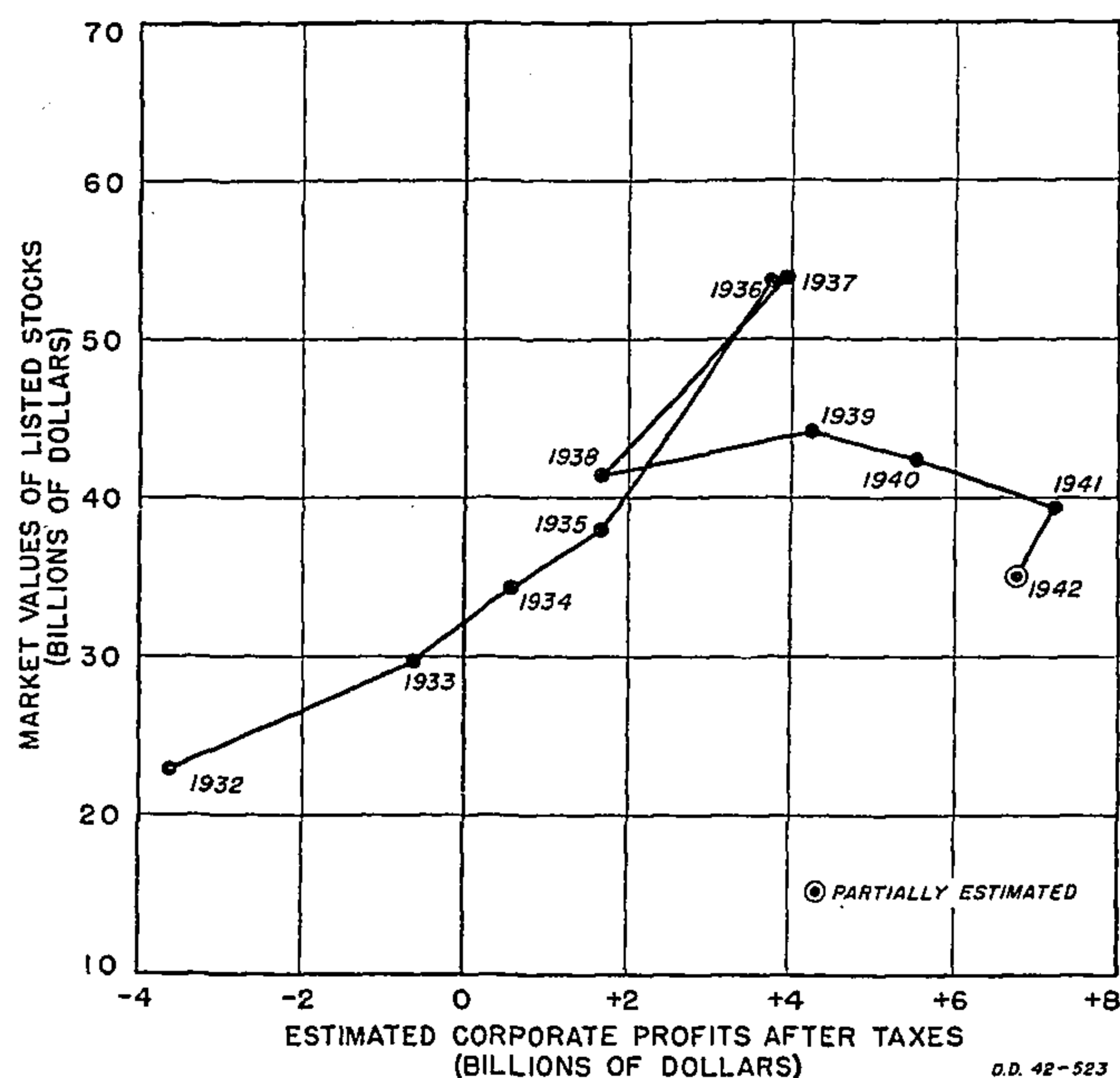
Sources: Standard and Poor's Corporation, Securities and Exchange Commission, and the U. S. Department of Commerce.

The policy of expanding the currency and credit circulation, in place of heavier taxation and larger bond sales to others than commercial banks, resulted in leaving individuals and business firms in a strong cash position. Mention has already been made of the unprecedented amounts saved by individuals during 1942. Some of the savings were in the form of debt reduction but much of it in the form of cash and bank credit. There is some evidence that business firms also saved large sums, including much cash. Many firms had set aside larger reserves against accrued taxes than they needed after their tax liabilities were clarified by the enactment of the 1942 Revenue Act.

Corporate Earnings at High Levels.

Despite war taxes, business enterprise during 1942 was on the whole exceedingly prosperous. Corporations, as shown in table 29, made larger profits before taxes than ever before. After taxes, they realized only 6 percent less profit than in 1941. Corporate earnings after taxes in 1941 were slightly higher than those of 1929 and were the largest on record.

Chart 21.—Market Values of Stocks Listed on the New York Stock Exchange Related to Estimated Total Corporate Profits After Taxes



Sources: New York Stock Exchange and U. S. Department of Commerce.

Despite near-record earnings after taxes, however, investors were fearful of the dangers hovering over a world aflame. Consequently they capitalized these earnings at very high rates to allow for the risks. Thus with total corporate earnings 74 percent higher than in 1937, for instance, stock prices, as measured by the Standard-Poor index, averaged 41 percent lower. Ever since Hitler invaded Poland in 1939, this discrepancy between corporate earnings and stock prices (see chart 21) has grown increasingly pronounced from year to year. The upward trend of the stock market since May, however, indicated renewed confidence, and prices closed the year higher than in December 1941.

1943 Prospects

Notwithstanding all the uncertainties that encompass a wartime economy, a real national product in 1943 larger than the record high volume of 1942 is a strong probability. It is, in fact, underwritten as much as a future event can be, by the magnitude of the 1943 armament program. The chief problem of management facing the Government as it maps out the policies to govern our 1943 war economy, is to make the most of our resources of manpower, materials, and capital equip-

ment which will become increasingly scarce relative to the ruling needs of the year.

The crucial problem will be manpower. This will be the case for the reasons already indicated—namely, that the civilian labor force of the Nation almost reached its peak in 1942 and will expand little if any more in 1943.¹⁰ The additional output envisaged in 1943 programs must therefore come largely from longer working periods and larger productivity per person as these will constitute the Nation's major labor reserves.

The manpower problem is complicated by the fact that it is essentially not a national problem subject to a single comprehensive solution, but is instead a large number of local problems. Whatever national policy is adopted, it will have to be executed in hundreds of localities and largely by the local authorities on the spot. Perhaps the most difficult aspect of it, therefore, will be to persuade the local authorities in each case to adhere to the general policies determined by the War Manpower Commission. As the armed forces continue to absorb more millions of men, the need for workers in war and essential civilian industries will soon become intense. It seems unavoidable that workers will have to move from surplus areas to scarcity areas, from nonessential to essential industries and occupations, and non-workers will have to join the work force. To bring about these various types of labor flow without any or with as little compulsion as possible, and to do it all promptly, equitably and with a minimum of individual hardships in all the various localities concerned—that is the crux of the problem.

The economy will have at its disposal in 1943 more materials and more capital plant and equipment to process them than in 1942. Materials stockpiles and inventories that can be drawn upon are in the case of most materials also larger. Moreover, available materials supplies will very likely be used more effectively in the national interest, with less leakage into idle inventories and with a more smoothly scheduled flow through the productive process. Such, at least, is the aim of the Controlled Materials Plan which will become effective early in the year. There is reason to believe that much of this promise will be fulfilled and that a given quantity of raw materials will result in a larger output of finished products than in 1942. It is to be hoped that the feature of the plan which places responsibility for the distribution of materials among subcontractors in the hands of the prime contractors will result in an increase, rather than shrinkage, in the number of subcontractors and in a broader spreading of war work among qualified business firms.

With regard to plant and equipment, the large number of new plants built and equipped in 1942 will

¹⁰ This does not mean, of course, that more newly recruited workers will not enter industry. It means rather that new accessions to the labor force will little more than offset withdrawals of men into the armed forces.

(Continued on page 32)

The American Economy in 1942

By Charles A. R. Wardwell and Robert B. Bangs¹

The first year of this war is now history. Few Americans perhaps will give its economic aspects more than a hasty, backward look as they lend attention to the more absorbing news being flashed from the fighting fronts. Yet if we are to benefit during 1943 from the lessons of the year just closed, it is essential that we analyze the year's significant economic trends.

In some ways, 1942 was one of the most momentous years in our economic annals. Since some features of our pre-war economy may be deemed to have gone with the bombs on Pearl Harbor, 1942 will stand forth to the historian as the first year of decisive transition from the pre-war economy to that of the war period and subsequently to that of the post-war era.

The year was replete with superlative achievements. New high records were the rule rather than the exception. Many customary and traditional ways of doing things were modified or abandoned. Altogether there were so many new developments that, by year-end, the economy was perhaps in a more fluid state than at any time since the Civil War or the period of westward expansion that followed.

Outstanding Features of the Year

The year opened with our armed forces on the defensive. By year-end, they were on the offensive. This transition was economically possible because of the accelerated program for raising and equipping our fighting forces and those of our Allies. The financial measure of this effort is the total of the Nation's outlay during the year for all war purposes—approx-

mately 54 billion dollars. This sum was almost equal to the entire gross national product of 1933.²

This outpouring of funds was accompanied by progressive Government controls aimed at channeling manpower, materials, and industrial facilities into our rapidly growing armament industries. The prime economic development of 1942 was the manner and extent of this mobilization of the Nation's resources for war.

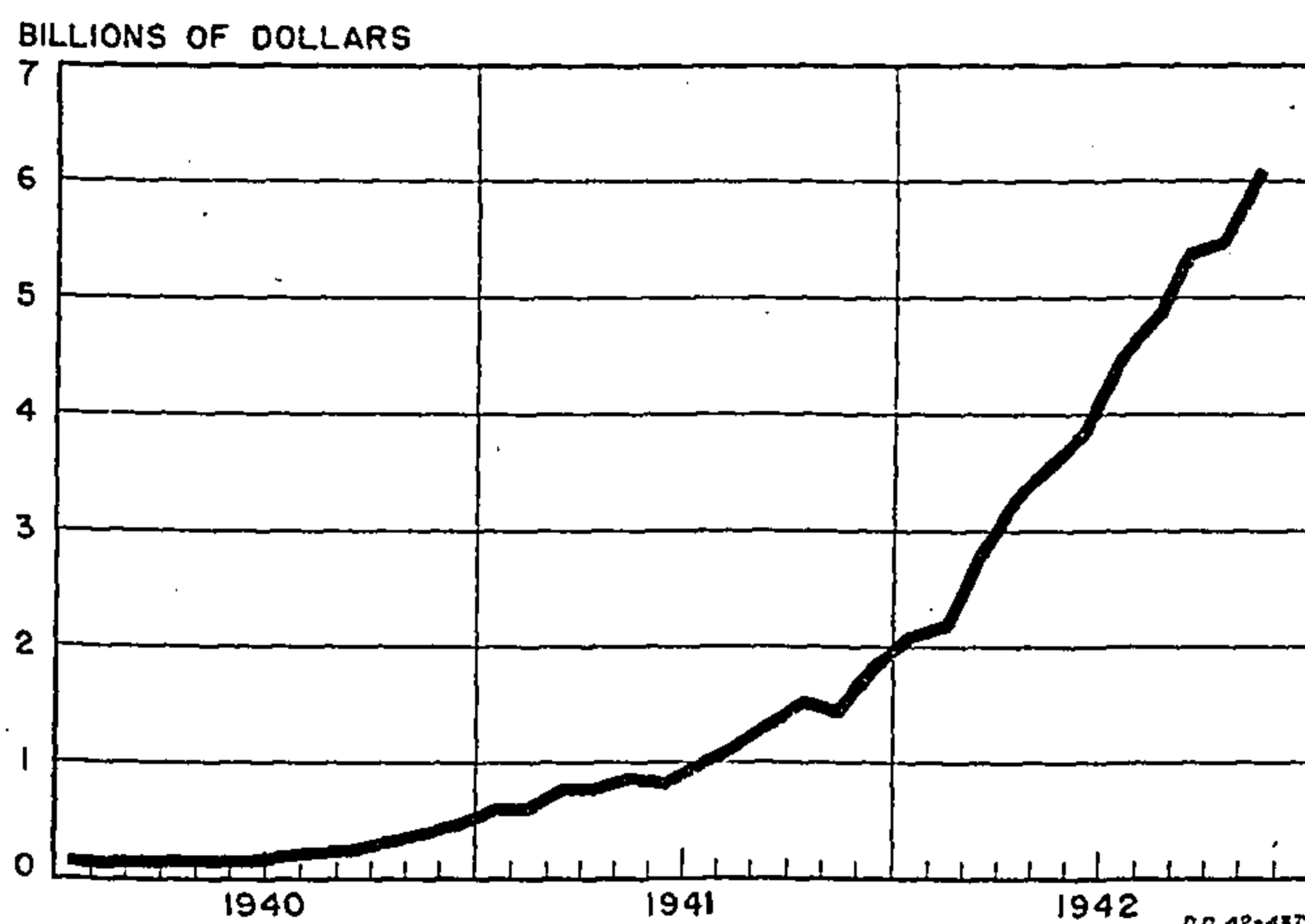
The response of the American economy to this war pressure was to lift its gross national product, measured in constant prices, by nearly 20 percent. The most significant single fact to be noted in reviewing the year is that this unprecedentedly large national output was achieved by bringing to bear a larger work force and a larger quantity of productive plant and equipment on a larger volume of raw materials—each factor being larger than ever before in the Nation's history. Industrial production rose 15 percent, manufacturing production 17 percent, while the physical volume of transportation was more than 25 percent above the preceding year. Thirteen percent more electric power was produced. All these impressive advances in physical output plus a slowly rising level of prices during the year were reflected in an expansion of approximately 25 percent in the national income.

The significance of the course of economic events in 1942 is to be found largely in the ways these output gains were achieved and in the policies, controls, and procedures required to attain this unprecedented mobilization of the Nation's economic potential.

The guidance of economic activity passed largely into Government hands. As the buyer of one-third of all goods and services produced, the Federal Government decided within broad limits what should be produced. As controller of the flow of basic materials and new productive equipment, it also determined what should not be produced. By its partial controls over prices, its power to allocate and ration commodities and basic public services such as transportation and communication, it also dominated distribution. By the year-end the basic policy-making powers over nearly all types of economic activity were being exercised by the Government. Actual conduct of economic operations remained, however, almost entirely in private hands.

Notwithstanding the extensive and intensive growth of Governmental controls, private enterprise continued to function in the usual manner for a year of prosperity. Aggregate corporate profits before taxes broke all existing records. After taxes they were only about 6.

Chart 1.—Federal Expenditures for War Activities



Source: Daily Statement of the U. S. Treasury.

¹ The writers gratefully acknowledge the contributions of the many individuals in the Division of Research and Statistics of the Bureau of Foreign and Domestic Commerce who have furnished statistical data for this review.

² Prices were, of course, very much lower in 1933 than in 1942.

percent below the 1941 all-time peak. Industrial disputes, although at low levels for a prosperous year, were by no means negligible. Not even vital war industries were free from their disrupting effects. Business failures declined to low levels. Although free open-market prices ceased to be the prime factor governing the distribution of many commodities, especially of those vital to the war effort, open-market wages continued very largely to govern the flow of available manpower into alternative industries.

The chief economic problems requiring solution were: (1) providing industry with the requisite manpower, materials, plant and equipment for producing the necessary munitions of war, (2) diverting goods and services from nonessential civilian uses into war uses, (3) providing for essential civilian needs, (4) distributing equitably among consumers certain increasingly scarce commodities, (5) financing war expenditures, and (6) the prevention of inflation.

The basic tasks of channeling manpower, materials, and productive facilities into war industries, of providing for essential civilian needs and of diverting goods and services from nonessential civilian consumption to war purposes, were achieved largely by priorities, limitation orders, and direct allocation. Apart from inductions by the Selective Service System, the flow of manpower into competing employments remained perhaps freest from control. Rationing was instituted on a limited but increasing scale as scarcities of some important consumer goods developed. As a result of this economic mobilization, approximately one-third of all goods and services produced during the year were diverted to war uses. Thus there remained for private business and consumer uses, only about six-tenths of all goods and services produced in 1942 compared with eight-tenths in 1941.

Federal Government expenditures in 1942 totaled about 60 billion dollars inclusive of Government corporations, of which 54 billions were for war purposes. The difficult fiscal problems confronting Congress and the Treasury were without precedent. The first tax legislation of this war, enacted October 20, 1942, provided only about 7 billion dollars of additional tax revenue in a full year of operation. It was generally recognized that this represented an insufficient addition to government revenue and that the new Congress would have to consider additional tax measures.

Federal expenditures for the year were covered by taxes only up to 30 percent. The remaining 70 percent was met by borrowing. This lifted the Federal funded debt 50 billion dollars to a new peak of 108 billions.

War expenditures generated a national income and a volume of income payments to individuals that exceeded all previous levels. At the same time consumer expenditures soared to new highs. Since these developments were accompanied by a decline in the volume of output of consumer goods, the stage was

thus set for inflation. During the opening months of the year, in fact, a strong rise was under way in both wholesale commodity prices and in the cost of living.

The imposition of the General Maximum Price Regulation in May effectively curtailed the upward movement of wholesale prices and slowed down the advance of living costs. Anti-inflation forces were still further strengthened by the Act of October 2, 1942, directing the President to stabilize "prices, wages and salaries affecting the cost of living" at around September 15 levels and by the Executive Order of October 3 establishing the Economic Stabilization Director as the supreme economic authority, subject only to the President himself. Although these moves definitely checked inflation, the struggle to hold prices down was unfortunately not permanently won. Administrative price controls were under attack and existing fiscal restraints were far from powerful enough to hold back prices by themselves.

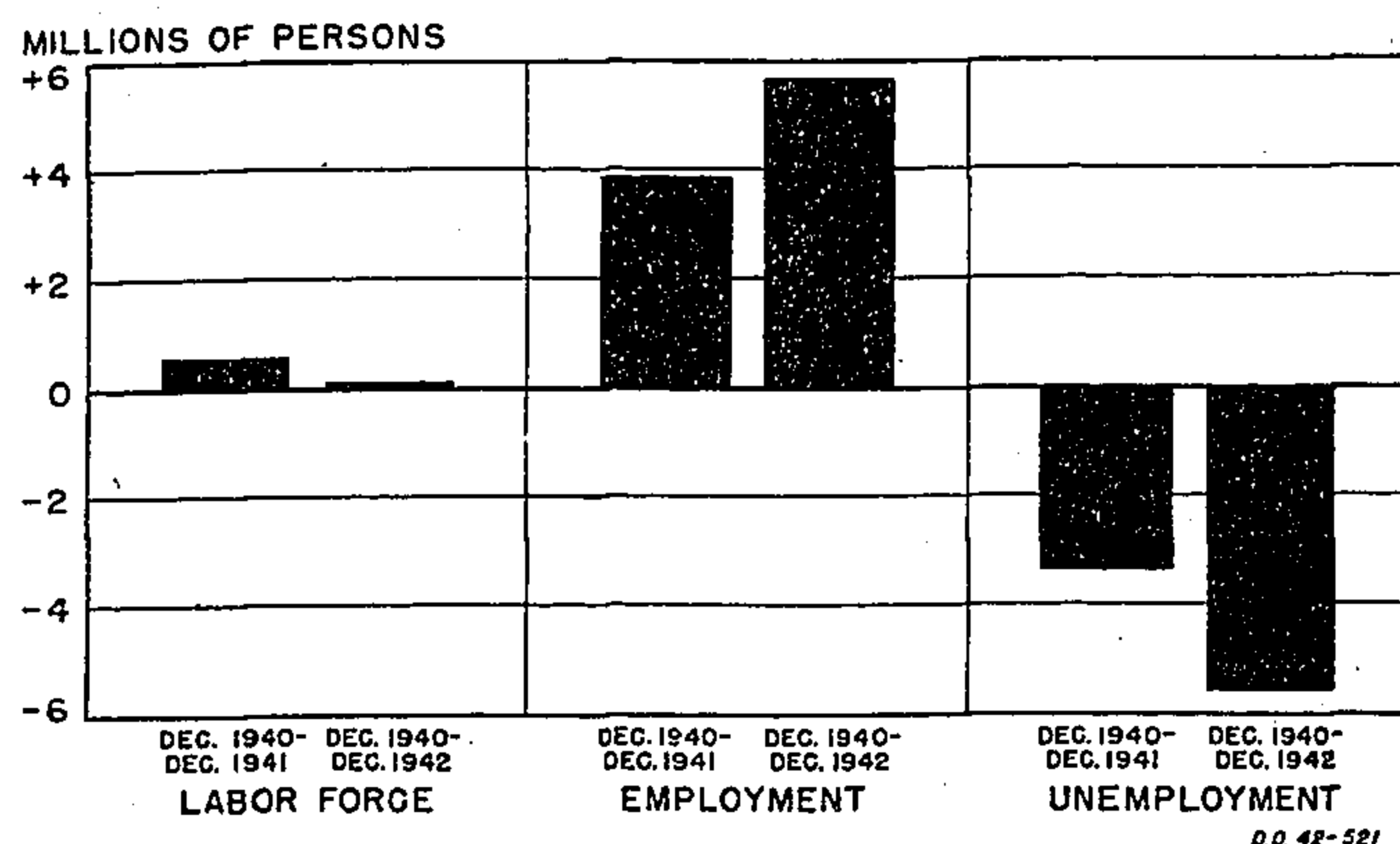
After paying taxes, consumers had large sums of purchasing power left which they could not spend for current consumption both because of growing scarcities of goods and because ceiling prices and rationing restricted competitive bidding for the supplies which were available. Under these circumstances, individual savings rose to extremely high levels.

Finally, the year's economic developments were of necessity deeply affected by events on the fighting fronts and by military decisions geared to the evolution of Allied war strategy. Japanese territorial gains in the Far East and the German submarine campaign against the Atlantic sea lanes caused, directly or indirectly, some profound changes in the quantities and types of materials available to our economy. The scarcity of cargo space for carrying civilian goods wrought marked changes in our foreign trade. The large-scale development of Lend-Lease began to affect almost every consumer. The raising and equipping of our armed forces had direct repercussions on civilian employment and on the types of goods that could be produced and distributed. Matters affecting both our civilian and our war economies, relating to Lend-Lease and economic warfare and hence to the economies of our Allies as well as ours, were increasingly worked out by joint boards and committees representing the United States and various other of the United Nations.

Under these circumstances, it was almost inevitable that economic developments of the year were characterized by trial-and-error procedures which involved doing entirely new things under pressure. The nature of these developments is reflected in greater detail in the discussion which follows.

Manpower

Men and women are the prime resource of any Nation. Their number and their capabilities both are vital. This was forcefully recalled to our attention during the past

Chart 2.—Changes in Estimated Civilian Labor Force¹

¹ Data do not include institutional population and persons in the armed forces.
Source: U. S. Department of Commerce.

year as the manpower scarcity developed more and more as the one problem that underlay all others. For—in a country of still untapped resources—shortages of materials, productive facilities, and other resources eventually resolve themselves into labor scarcity.

The manpower story of the year can be told simply. The civilian labor force remained approximately stationary if seasonal changes are ignored, as may be seen in table 1. The number of employed workers increased about 3,000,000 on a monthly average basis, while the the unemployed, similarly measured, decreased 3,000,000. The armed forces increased several millions. Their growth caused a constant drain on the civilian labor force which was made good largely by the recruiting of several millions of nonworkers into the labor

Table 1.—Estimated Civilian Labor Force

[Millions of persons]

Year and month	Civilian labor force ¹			Employment ¹									Unemploy- ment		
	Total	Male	Female	Total	Nonagricultural			Agricultural			Total	Male	Female		
					Total	Male	Female	Total	Male	Female					
1940															
December.....	53.4	40.9	12.5	46.3	37.6	27.4	10.2	8.7	8.3	0.4	7.1	5.2	1.9		
1941															
December.....	54.0	40.2	13.8	50.2	41.9	29.8	12.1	8.3	7.8	0.5	3.8	2.6	1.2		
Average for year.....	54.4	41.1	13.3	48.8	39.4	28.7	10.7	9.4	8.5	.9	5.6	3.9	1.7		
1942															
January.....	53.2	40.0	13.2	48.9	40.7	29.3	11.4	8.2	7.7	0.5	4.3	3.0	1.3		
February.....	53.4	40.0	13.4	49.4	41.0	29.3	11.7	8.4	7.9	0.5	4.0	2.8	1.2		
March.....	54.5	40.0	14.5	50.9	42.0	29.5	12.5	8.9	8.1	0.8	3.6	2.4	1.2		
April.....	53.7	39.8	13.9	50.7	41.4	29.4	12.0	9.3	8.4	0.9	3.0	2.0	1.0		
May.....	54.2	40.0	14.2	51.6	41.4	29.6	11.8	10.2	8.8	1.4	2.6	1.6	1.0		
June.....	56.1	41.1	15.0	53.3	41.8	30.0	11.8	11.5	9.4	2.1	2.8	1.7	1.1		
July.....	56.8	41.6	15.2	54.0	42.3	30.2	12.1	11.7	9.7	2.0	2.8	1.7	1.1		
August.....	56.2	41.1	15.1	54.0	42.8	30.2	12.6	11.2	9.5	1.7	2.2	1.4	0.8		
September.....	54.1	39.2	14.9	52.4	42.2	29.6	12.6	10.2	8.6	1.6	1.7	1.0	0.7		
October.....	54.0	39.0	15.0	52.4	41.9	29.2	12.7	10.5	8.9	1.6	1.6	0.9	0.7		
November ²	54.5	38.5	16.0	52.8	43.0	29.1	13.9	9.8	8.4	1.4	1.7	1.0	0.7		
December ²	53.4	37.9	15.5	51.9	43.0	29.0	14.0	8.9	8.0	.9	1.5	.9	0.6		
Average for year.....	54.5	39.9	14.6	51.9	42.0	29.6	12.4	9.9	8.6	1.3	2.6	1.7	0.9		

¹ Data do not include institutional population and persons in the armed forces.
² Preliminary.

Source: U. S. Department of Commerce.

force and to a lesser extent by population growth (amounting to nearly 1,000,000 persons in the age groups of 14 years and above).

Most of the new additions to the civilian labor force were women. When the monthly average labor force in 1942 is compared with that of 1941, it is seen that the number of men dropped approximately 1,200,000 while the number of women rose 1,400,000. As would be expected, the decline in male workers was largely in the military ages between 20 and 34, inclusive, while most of the new women recruits in the labor force were apparently in the age groups from 35 to 54, inclusive.

Table 2.—Civilian Employment by Major Industrial Groups

[Millions of persons]

Group	Monthly average	
	1941	1942 ¹
Civilian employment, total.....	48.8	51.9
Nonagricultural.....	39.3	42.0
Employees in nonagricultural establishments.....	34.4	36.9
Manufacturing and mining.....	13.7	15.6
Construction.....	2.0	1.9
Transportation and public utilities.....	3.3	3.4
Trade, finance, service, and miscellaneous.....	11.1	10.9
Government (excluding armed forces).....	4.3	5.1
Self-employed, proprietors, domestics, etc.....	4.9	5.0
Agricultural.....	9.4	9.9

¹ Preliminary estimates.

Sources: Employees in nonagricultural establishments, U. S. Department of Labor; all other data, U. S. Department of Commerce.

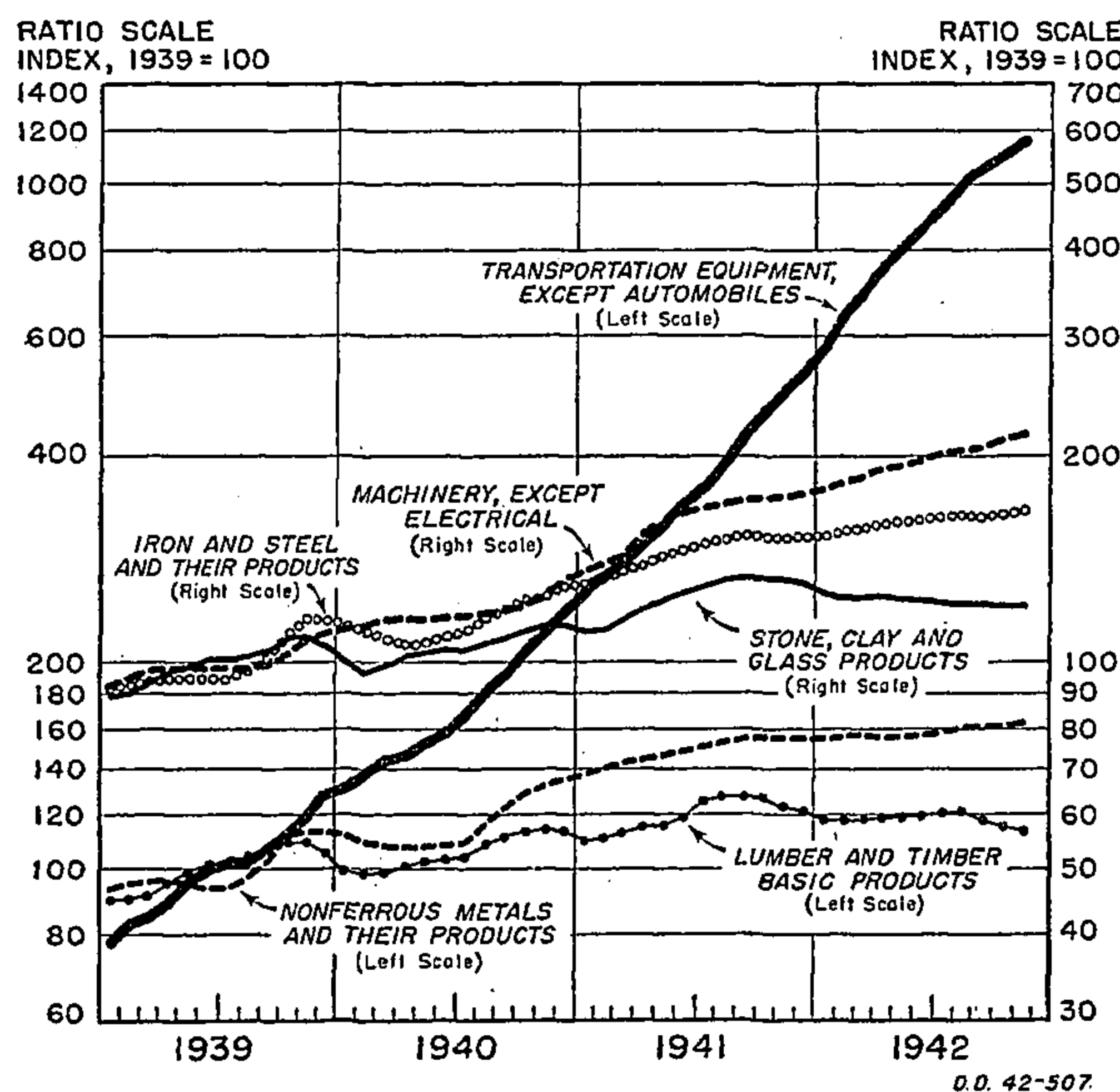
At the year-end, the number of unemployed had been reduced to about 1,500,000. It is generally expected that even at the peak of the war effort, roughly 1,000,000 will remain unemployed. Some of these will be unemployable but many of them will be in process of changing jobs. During a period of high labor turnover, such as the present, a sizable "float" of temporarily unemployed workers is virtually inevitable.

Mobilization of the economy for war naturally produced pronounced shifts in employment during the year both among the several industry groups and also within industries. Manufacturing and Government registered the most notable increases while trade and self-employed, proprietor and domestic service groups showed the largest declines.

Within industry groups, the major employment shifts were chiefly from nonessential to war and essential civilian goods lines. This is evident from the employment trends, shown in chart 3, of the durable-goods manufacturing industries. In some cases, comparisons of employment in 1941 and 1942 will be either difficult or meaningless because the conversion of industrial plants to war-goods manufacture may be concealed by retaining such plants in the former civilian-industrial classification.

The year's record high total of man-hours of labor was achieved by an employed group larger than ever before, working longer hours. In 90 manufacturing industries for which we have data, the average 1942

Chart 3.—Wage Earners in Selected Durable-Goods Industry Groups, without Adjustment for Seasonal Variations



Source: U. S. Department of Labor.

workweek was approximately 42.5 hours (see table 3)—an increase of 5 percent over 1941. The Government has informally determined that 48 hours should be the standard length of the workweek for the duration of the war. In view of the fact that, apart from seasonal changes, our civilian labor force is now about as large as it will be even at the peak of the war effort, it is quite clear that the Nation's labor reserve, available to expand output substantially from present high levels, consists very largely of our ability to work longer hours per week, at least up to 48 on the average. Some of the war industries, especially various metal-working trades, were averaging close to or above 48 hours a week in October. A number of the nondurable goods and mining industries, in contrast, were recently still working considerably less than 40 hours. In

Table 3.—Average Hours Worked Per Week in Manufacturing Industries

Industry and industry group ¹	[Hours]		
	1940	1941	1942 (estimated)
All manufacturing.....	38.1	40.5	42.5
Durable goods.....	39.2	42.1	44.9
Nondurable goods.....	37.0	38.9	39.9
Selected industry groups or industries:			
Machinery, not including transportation equipment.....	41.3	45.0	47.9
Machine tools.....	48.2	51.7	54.3
Electrical machinery, apparatus, and supplies.....	40.7	43.8	45.9
Nonferrous metals and their products.....	40.0	42.4	44.4
Automobiles.....	37.9	39.7	43.2
Iron and steel and their products, not including machinery.....	38.1	41.0	42.4
Food and kindred products.....	40.0	40.5	41.4
Chemicals, petroleum, and coal products.....	38.7	39.8	41.0
Rubber products.....	36.9	39.5	40.5
Textiles and their products.....	35.0	37.6	38.8
Leather and its manufactures.....	34.9	38.3	38.6

¹ Data are based upon classification prior to September 1942 as data for the revised industry classification shown in current reports are available only for recent months.

Sources: U. S. Department of Labor, except 1942 data which were estimated by the U. S. Department of Commerce.

Table 4.—Average Hours Worked Per Week and Employees in Manufacturing Industries, October 1942¹

Industry group ²	Average hours worked per week	Employees	
		Thousands	Per cent of total
All manufacturing.....	43.6	12,721	100.0
Durable goods.....	45.7	7,153	56.2
Nondurable goods.....	40.6	5,569	43.8
Machinery, except electrical.....	48.6	1,119	8.9
Transportation equipment except automobiles.....	47.1	1,768	13.9
Electrical machinery.....	46.4	594	4.7
Nonferrous metals and their products.....	45.3	371	2.9
Automobiles.....	44.9	478	3.7
Iron and steel and their products.....	43.4	1,636	12.9
Paper and allied products.....	43.3	295	2.3
Furniture and finished lumber products.....	43.1	350	2.8
Rubber products.....	42.7	162	1.3
Chemicals and allied products.....	42.5	655	5.1
Lumber and timber basic products.....	42.5	484	3.8
Food and kindred products.....	41.9	1,125	8.8
Products of petroleum and coal.....	40.5	125	1.0
Textile mill products and other fiber manufactures.....	40.4	1,255	9.9
Tobacco manufactures.....	40.4	99	.8
Stone, clay, and glass products.....	39.8	354	2.8
Leather and leather products.....	38.8	350	2.8
Printing, publishing, and allied industries.....	38.5	324	2.5
Apparel and other finished textile products.....	36.8	843	6.6
Miscellaneous industries.....	44.9	335	2.6

¹ The industrial groups, except miscellaneous, are arranged in decreasing order of magnitude of average hours worked per week.

² Revised industry classification which differs from the classification in use prior to September 1942, shown in table 3, because of shifts between groups or subdivisions of groups.

Source: U. S. Department of Commerce.

order to bring the national average workweek up to 48 hours, obviously some major adjustments lie ahead.

Perhaps the largest unknown in the entire manpower problem is that of productivity per man-hour. There is scattered evidence to show that in 1941 productivity in manufacturing was the highest on record. The trend in 1942, however, has been much in doubt because sweeping changes in the character of goods produced have made it difficult if not virtually impossible to obtain measures of productivity comparable with those for former years. Factors tending to decrease productivity per man-hour during the year have included high labor turn-over and loss of experienced personnel, the increasing proportion of green and unskilled help employed, fatigue from longer hours, and the necessity of using new substitute materials, new methods, and older, less efficient machinery. Among the factors tending to increase productivity were larger-scale operations, simplification of output, and the application of newer processes of production—many of them involving increased amounts of machinery, equipment, and power per man. In order to achieve the peak war production constituting the principal objective on the home front, it will undoubtedly be necessary to lift productivity per man wherever possible in the war industries.

The centralization of control over manpower in the War Manpower Commission was effected by Executive Order on December 5, 1942. By the transfer of the Selective Service System to the Manpower Commission, the latter is vested with the vital task of providing manpower for both our armed forces and our essential industries. This centralization of authority presages the development of more unified and forceful policies designed to solve such problems as procuring workers for

essential jobs in ways that will end labor pirating, reducing the present high rates of labor turn-over, reconciling the conflicting claims of war and essential industries and of the armed forces for men, and shifting workers from nonessential to essential industries and occupations where they will be most effective.

Raw Materials

The aggregate volume of raw materials processed in the American economy during 1942 seems on balance to have been larger than in 1941 or any previous year. How much larger cannot be known precisely because of difficulties of assigning appropriate weights. Precisely what, for example, was the net gain or loss to the 1942 war program because our industries had more steel and less rubber than in 1941, or more mercury and sisal with less burlap and cork?

Table 5.—Summary of Raw Material Supplies

Item	1940	1941	1942
Total agricultural production (billions of 1935-39 dollars) ¹	9.7	9.9	11.1
Crops.....	3.7	3.7	4.3
Livestock products.....	6.0	6.2	6.8
Production indexes (1935-39=100): ²			
Lumber.....	115	129	127
Cement.....	122	154	174
Fuels ³	114	122	126
Supply index of 6 basic metals (1935-39=100) ⁴	144	180	190

¹ U. S. Department of Agriculture.

² Board of Governors of Federal Reserve System.

³ Includes coal and crude petroleum.

⁴ U. S. Department of Commerce; based on production and imports. Includes steel, copper, lead, tin, zinc, and aluminum.

The supplies of materials available during the year came from new production, imports, and stocks in the hands of the Government and private business. Reasons of security prevent the giving of detailed information on specific critical materials, but the data in table 5 give a general summary of the 1942 materials situation. The Nation's farms produced the largest volume of agricultural materials in their history. Some of the details concerning this record volume of agricultural output are shown in table 6. The output of our forests, as measured by lumber, fell slightly. Quarry pro-

Table 6.—Volume of Agricultural Production for Sale and Farm Consumption
[1935-39=100]

Product	1939	1940	¹ 1941	² 1942
Total.....	106	110	113	127
Crops.....	107	107	110	125
Food grains.....	101	110	131	138
Feed grains and hay.....	124	114	126	147
Cotton and cottonseed.....	89	95	83	100
Oil bearing crops.....	143	171	189	326
Tobacco.....	129	101	87	98
Truck crops.....	106	111	115	127
Fruits and tree nuts.....	111	110	114	114
Vegetables.....	99	101	102	105
Sugar crops.....	106	104	97	113
Livestock and livestock products.....	106	112	115	129
Meat animals.....	109	118	118	139
Poultry and poultry products.....	108	109	115	128
Dairy products.....	102	105	110	116

¹ Preliminary.

² Tentative estimate.

Source: U. S. Department of Agriculture.

duction, as indicated by cement, was sharply higher. Minerals output, represented by fuels and metallic minerals, was also higher. Supplies of six basic metals, including imported quantities along with domestic output, were about 5 percent above 1941. Chief among these metals was steel.

Chief losses were naturally in imported materials. As shown in a later section, imports in the first 11 months of 1942 were 20 percent below the corresponding period of 1941. More than 100 commodities have been listed as strategic and critical by the War Production Board. Of these, our entire supplies of at least 25 have to be imported. In the case of many others, imports constitute half or more of our entire supply and form the margin of difference between adequate supplies and serious shortages. Our imports of many of these strategic and critical materials rose during 1942, but in the majority of cases they fell.

Smaller portions of 1942 material supplies went into business stockpiles, however, and larger portions than in 1941 flowed into consumption. Moreover, there is evidence that in 1942, as compared to 1941 and earlier years, the materials available were more highly processed and for this reason supported a larger volume of industrial production.

Plant and Equipment

Large additions made to the Nation's industrial plant and equipment during 1941 and 1942 gave industry more facilities with which to work during some part or all of 1942. Because of extra wear and tear due to the current high rate of operations, deterioration of capital facilities was undoubtedly high. But certainly capital consumption was far less than the new capital goods added and also very probably less than the financial depreciation allowances charged off as costs.

Industrial construction on an unparalleled scale during the last 2 years, as shown in table 7, increased the Nation's industrial plant to the highest level ever

Table 7.—Industrial New Construction, 1929-42

[Millions of dollars]

Year	Private	Public	Total
1929.....	830	(1)	830
1930.....	519	(1)	519
1931.....	214	(1)	214
1932.....	83	(1)	83
1933.....	188	(1)	188
1934.....	178	9	187
1935.....	160	4	164
1936.....	284	3	287
1937.....	503	4	507
1938.....	191	14	205
1939.....	227	14	241
1940.....	423	144	567
1941.....	678	1,400	2,078
1942 (preliminary).....	314	3,696	4,010
Total, 1941-42.....	992	5,096	6,088
Total, 1929-42.....	4,792	10,080

¹ A small but indeterminate amount of public construction is included with private.

Source: U. S. Department of Commerce.

attained. Most of the new and expanded plants belonged to our rapidly growing armaments industries but many others were in basic materials industries, such as steel, aluminum, and other metals, which expanded our ability to produce civilian goods under peacetime conditions. While the convertibility to civilian uses of some of these new plants is problematical, there is no doubt of the magnitude of the addition they made to our wartime industrial capacity in the year just ended.

Naturally, new tools, machinery, and other equipment were also put into operation over the last year or two, not only in the new plants but in old ones as well. Industry began the year 1942 with approximately 26 percent more machine tools, for instance, than it had on January 1, 1940, according to the following estimates:

Date	Additions between dates shown	Number of tools in place	Percent change from previous period
January 1, 1940:.....			
Total machine tools.....		934,000	
Less obsolete (over 17½ years).....		-164,000	
Net machine tools in place.....		770,000	
January 1, 1942.....	200,000	970,000	+26
January 1, 1943.....	270,000	1,240,000	+28

It will be noted that during 1942, some 270,000 new machine tools were delivered, constituting an addition of about one-fourth to those in place at the beginning of the year. Furthermore, these new tools are known to be much more effective than the old ones in cutting and working materials. Their increased effectiveness, in fact, has been roughly estimated as high as one-fifth. Deliveries of all types of machinery and equipment, including machine tools, to war industries have been on a tremendous scale during the past 2½ years:

	<i>Deliveries of Machinery and equipment¹</i> <i>(million dollars)</i>
July 1, 1940, to Dec. 31, 1941.....	959
1942 estimated total.....	2,900

¹ Only Government financed machinery and equipment.

Industry began the year 1942, as may be seen from the above data, with nearly a billion dollars worth more publicly financed equipment than it had at the time of Dunkerque. During 1942 nearly 3 billion dollars more machinery and equipment was installed in publicly financed war plants. Despite these large deliveries, the need for all available machinery was such that many machine tools and other equipment, which industry had long ago written off as worthless and put aside for junking, were resurrected and put back into effective operation.

Altogether it is clear that never before in the Nation's history was so much physical industrial capital brought

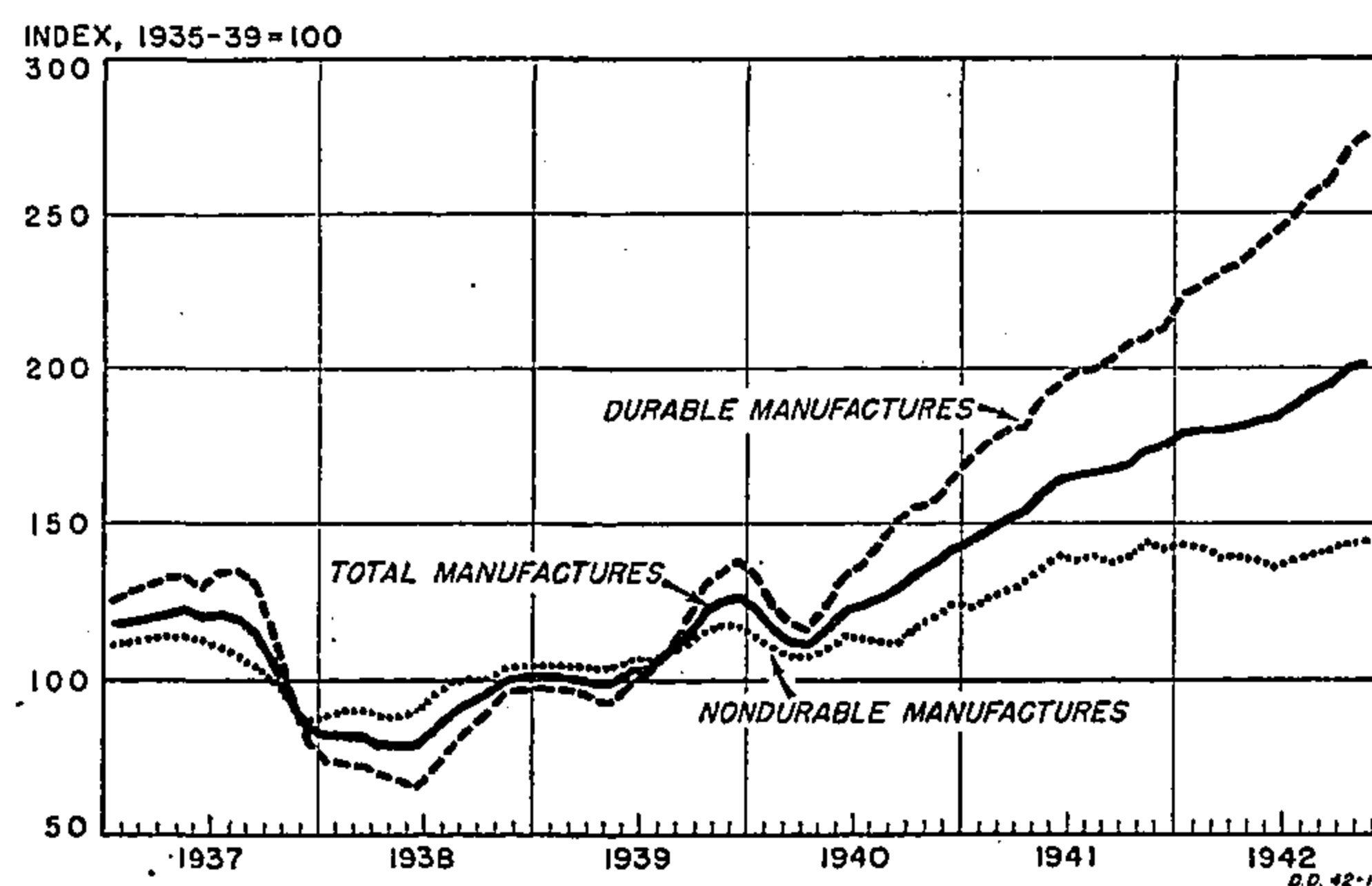
to bear on the processing of materials as in the year just ended.

Moreover, this unprecedentedly large volume of industrial capital was more continuously operated during 1942 than in previous years. Statistics are neither very complete on this point nor available for publication but they do show a rising trend in hours of machinery operation per week during the year. This trend is due to the addition of second and third shifts or where more shifts have not been added, to longer hours per week on the single shift, especially in those industries turning out war goods.

Industrial Production

The year 1942 was marked not only by record increases in industrial production, but also by sharp changes in the composition of output as war requirements dominated the industrial scene. Total industrial production, as measured by the Federal Reserve index, registered approximately a 15-percent advance during the year, but the preponderance of this gain was recorded in the durable-goods manufacturing industries,

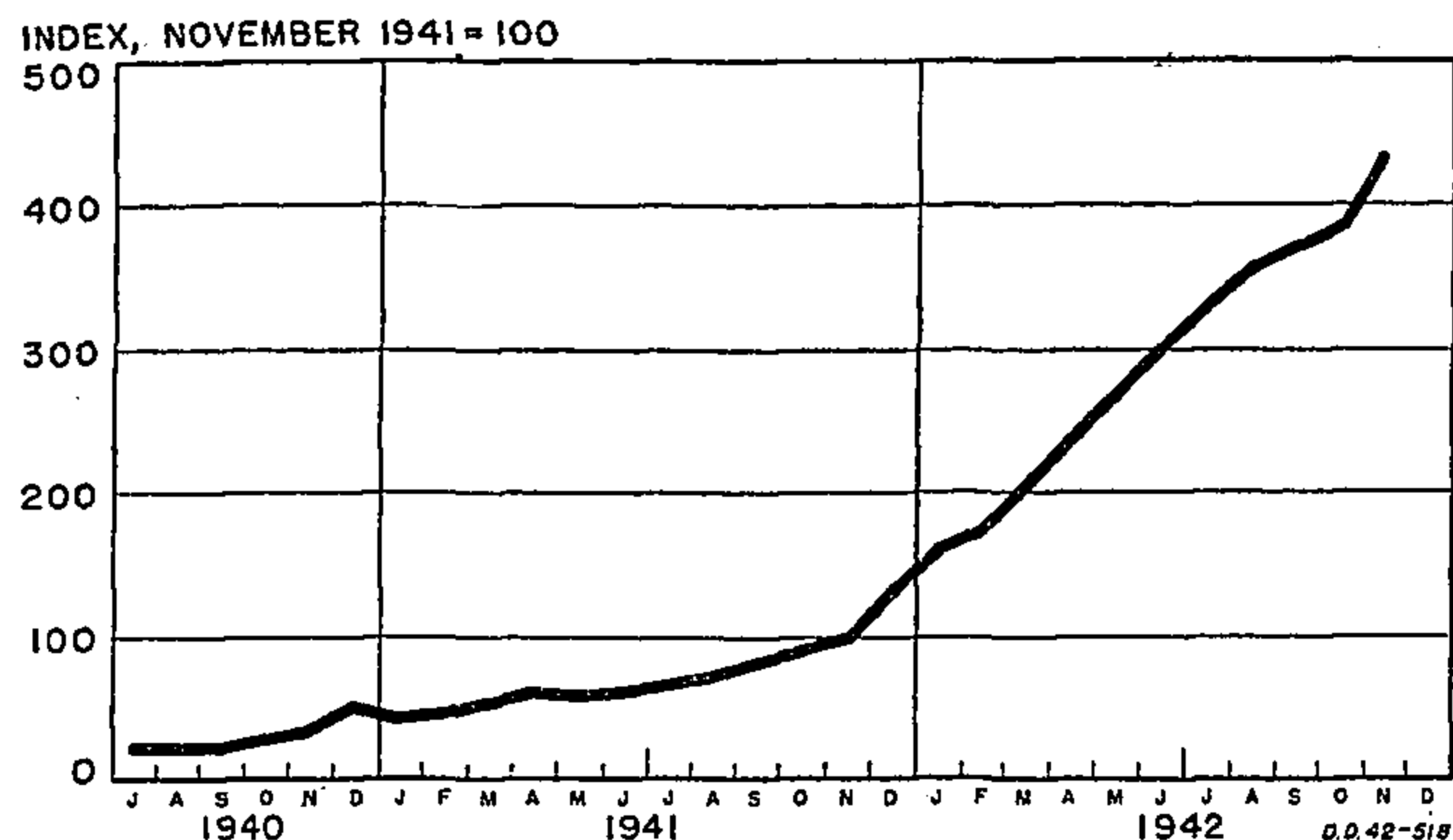
Chart 4.—Production of Manufactures, Adjusted for Seasonal Variations



Source: Board of Governors of the Federal Reserve System.

where war orders were concentrated. Production of nondurable goods increased only 4 percent in contrast to the rise of nearly 30 percent among the durables. Production of minerals was also 4 percent above 1941, but the bulk of this increase was accounted for by fuels. The metals index was held down by declining production of gold and silver. If these are excluded, the metallic minerals index advanced 13 percent.

The growth of munitions production throughout the year was steady, although the record was not equally good with respect to all parts of the munitions program. According to the War Production Board's index of munitions output, shown in chart 5, aggregate munitions production during November was at a rate approximately 4 times that of a year earlier. Adjustments to bring about better balance in the entire munitions program and to take account of the growing scarcity of materials were associated with the decline in the rate of

Chart 5.—Production of Munitions, without Adjustment for Seasonal Variations¹

growth of munitions output during September and October, but in November production once more shot ahead to register the largest monthly increase yet recorded.

Among the durable-goods manufacturing industries the transportation-equipment group, including the vital shipbuilding and aircraft industries, recorded the largest gain, amounting to nearly 80 percent over 1941. Large scale production of the standard model Liberty ship made possible numerous technological improvements in the methods of ship construction which shortened the

Table 8.—Indexes of Industrial Production

[1935-39 = 100]

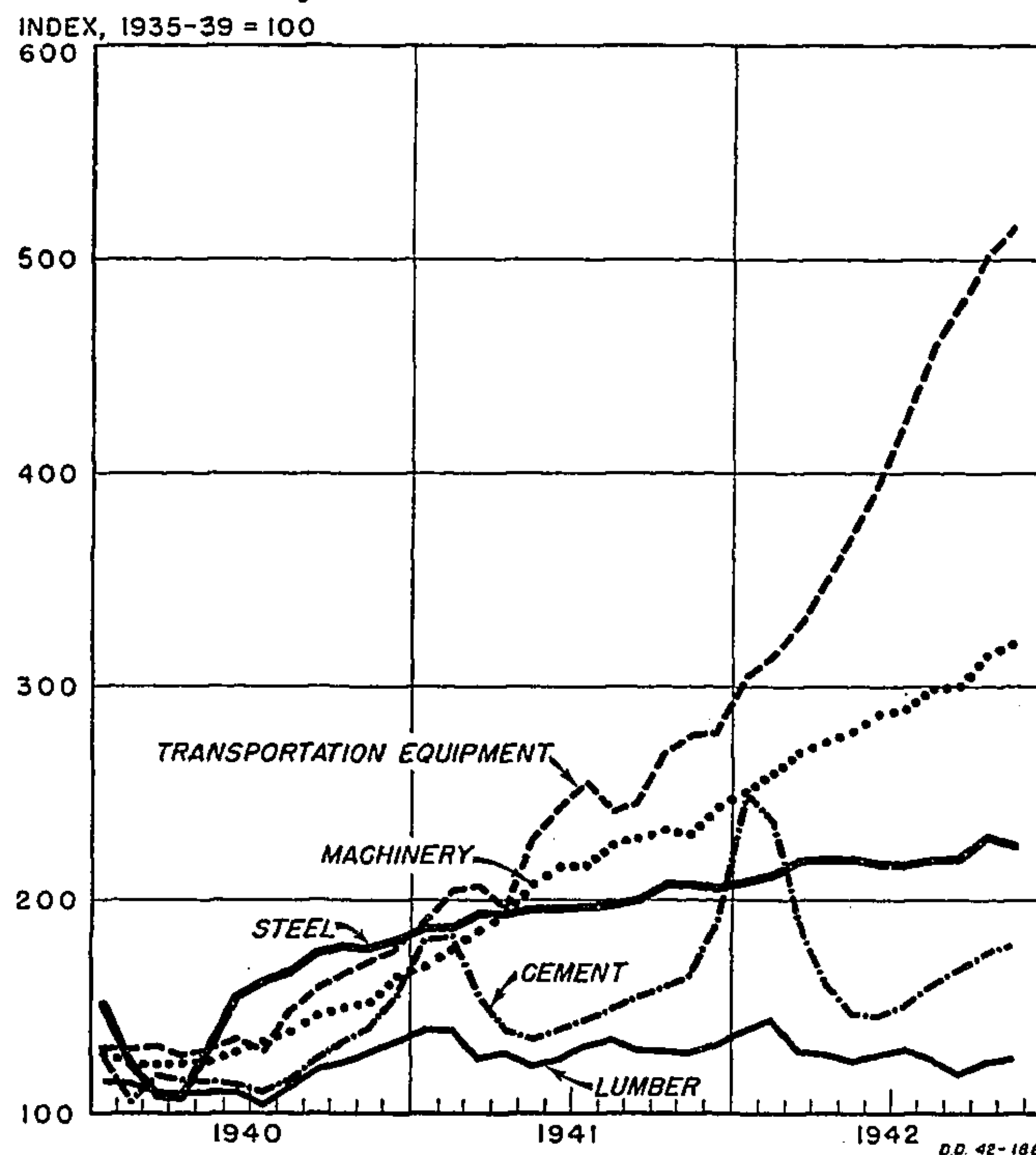
Item	1940	1941	1942	Per- cent change, 1942 from 1941
Total index.....	123	156	180	+15
Manufactures.....	124	161	189	+17
Durable goods.....	138	193	250	+30
Nondurable goods.....	113	135	140	+4
Minerals.....	117	125	130	+4
Durable manufactures:				
Open-hearth and Bessemer steel.....	143	175	180	+3
Electric steel.....	212	357	495	+30
Machinery.....	135	210	289	+38
Transportation equipment.....	145	234	415	+77
Automobile bodies, parts, and assembly.....	116	140	119	-14
Nonferrous metals and products.....	137	185	188	+2
Lumber and products.....	116	134	132	-2
Lumber.....	115	129	128	-1
Furniture.....	117	145	140	-3
Stone, clay, and glass products.....	121	152	156	+3
Cement.....	122	154	172	+12
Nondurable manufactures:				
Textiles and products.....	114	151	155	+3
Cotton consumption.....	120	158	171	+8
Woolen and worsted cloth.....	105	162	175	+8
Leather and products.....	97	121	120	-1
Shoes.....	100	123	118	-4
Manufactured food products.....	114	128	141	+10
Manufactured dairy products.....	114	132	146	+11
Meat packing.....	125	129	146	+13
Other manufactured foods.....	113	129	144	+12
Alcoholic beverages.....	101	116	125	+8
Tobacco products.....	109	120	130	+8
Paper and paper products.....	123	142	139	-4
Paper.....	119	142	136	-4
Printing and publishing.....	111	124	115	-7
Newsprint consumption.....	103	107	103	-4
Printing paper.....	118	141	127	-9
Petroleum and coal products.....	116	128	122	-5
Gasoline.....	112	126	110	-13
Coke.....	135	151	164	+9
Chemicals.....	114	139	170	+22
Minerals:				
Bituminous coal.....	116	129	147	+17
Anthracite.....	101	110	121	+14
Crude petroleum.....	116	120	119	-1
Metals, excluding gold and silver.....	145	168	190	+13

Source: Board of Governors of the Federal Reserve System, except data for 1942 which were estimated by the U. S. Department of Commerce.

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production period in this industry to a fraction of the time formerly required. Many new shipways on both coasts also came into production during the year. Reports on the progress of the shipbuilding program indicated that output during the year was slightly in excess of the Presidential announced objective of 8,000,000 deadweight tons.

Aircraft production also made remarkable strides during 1942, despite some difficulties in securing a balanced flow of all parts and subassemblies. On January 7, the President, in his message to Congress, announced that 1942 aircraft output had been 48,000 planes of all types. Improvements in the design of combat aircraft resulted from actual battle experience and the quality of various models was steadily improved throughout the year.

Chart 6.—Production of Selected Durable Manufactures, Adjusted for Seasonal Variations

Source: Board of Governors of the Federal Reserve System.

Production of steel increased moderately during the year, but supplies of a number of partially fabricated steel products such as plates and shapes ran far short of requirements. Approximately 86,000,000 tons of ingot steel were produced, roughly 4 percent more than last year. Electric steel, required for armor plate and munitions, increased sharply in volume in response to pyramiding demand.

Production in the other durable-goods industries reflected difficulties attendant upon conversion, shortages of materials, and the increasing importance of military requirements. Production in the automobile industry was slowed considerably during the first half of the year by the change-over to war orders, but picked up rapidly thereafter. Smelting and refining of

nonferrous metals, and manufacture of the finished products, registered only a modest gain, according to the Federal Reserve index, but the index probably does not reflect accurately the full increase in output in these industries. Shortages of the raw nonferrous metals continued to hamper production throughout the year and to necessitate the strictest controls over supplies and inventories in order to meet the largest possible part of the military requirements.

Illustrative of the increasing importance of the output of the durable goods manufacturing industries are the data contained in table 9, which show the relative contributions by different industrial groups, as measured by the Federal Reserve index, to total industrial production. In this table both the weights of industrial components in the index for the base period, and the increases since that period have been taken into account. Since the weights in the Federal Reserve index are derived from value added by manufacture in 1937, the resultant distribution for 1942 indicates approximately the value added by different types of production last year.

Table 9.—Relative Importance of Industry Groups in Aggregate Industrial Production

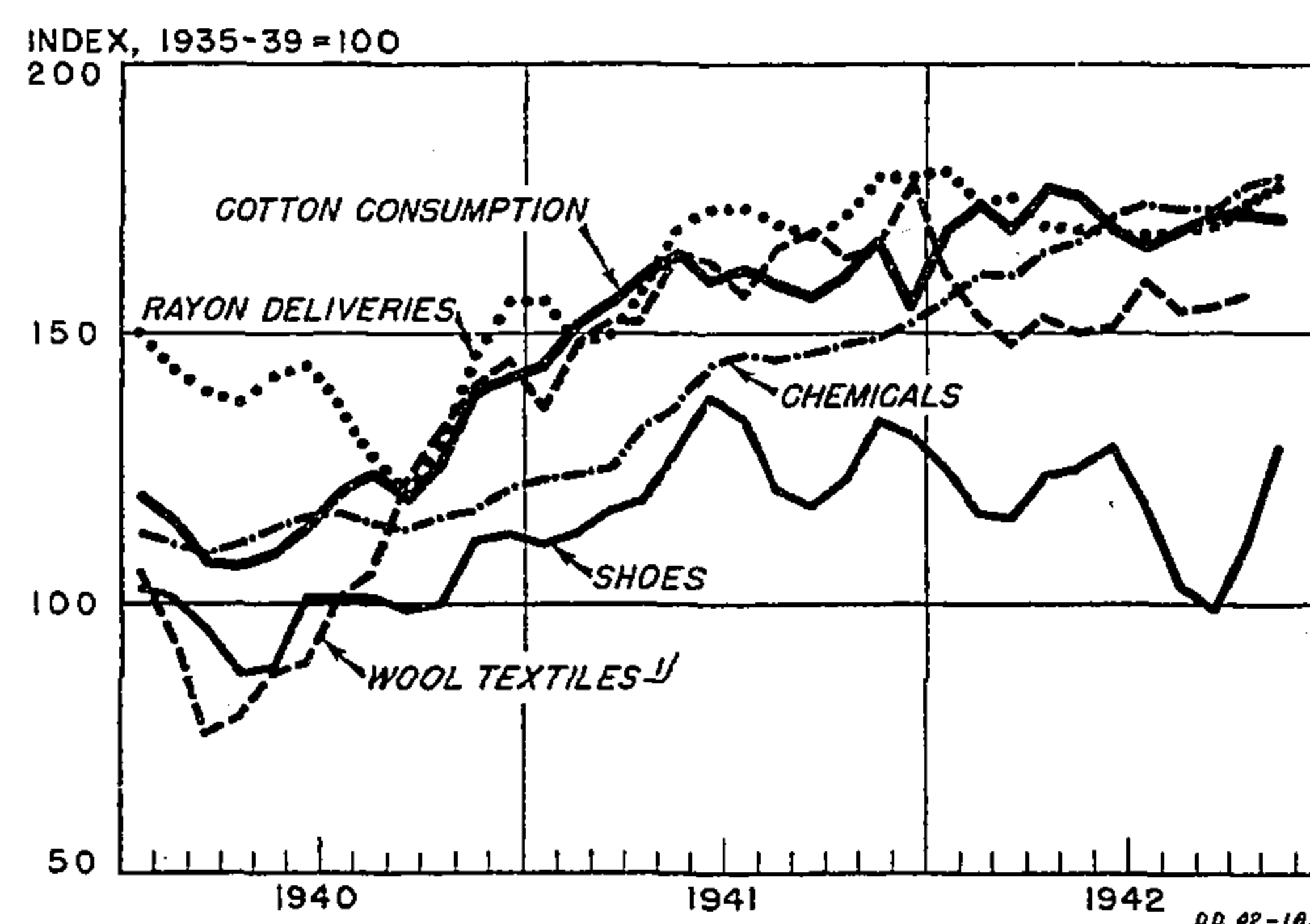
Item	1929	1937	1939	1940	1941	1942
Index of total industrial production, 1935-39=100.....	110	113	108	123	156	180
Durable manufactured goods:						
Points in total index.....	50	46	41	52	73	94
Percent of total industrial production.....	45	41	38	42	47	52
Nondurable manufactured goods:						
Points in total index.....	44	50	51	53	64	66
Percent of total industrial production.....	40	44	47	43	41	37
Minerals:						
Points in total index.....	16	17	16	18	19	20
Percent of total industrial production.....	15	15	15	15	12	11

Source: Board of Governors of the Federal Reserve System.

Among the nondurable goods manufacturing industries, production trends during the year were divergent, as may be seen from chart 7. The trend for a given industry was governed both by its adaptability to military orders and by its relative dependence upon scarce materials. Gains were recorded in textiles, foods, and chemicals as increased military and Lend-Lease requirements were added to expanded civilian demand. Losses in comparison with the previous year's output occurred in leather products, paper products, printing and publishing, and petroleum and coal products.

Perhaps more important than the comprehensive increases in industrial production during 1942 was the enlarged portion of the output of most industries diverted to war purposes, leaving in these cases a dwindling residual for civilian uses. While an exact classification of output into war and nonwar segments cannot, of course, be made because of the varying degrees of essentiality to the war program of nearly all new production, rough estimates of this sort are possible. They are of interest for the light they throw upon the

Chart 7.—Production of Selected Nondurable Manufactures, Adjusted for Seasonal Variations



¹ Data for November 1942 were not available in time to include them in this chart.
Source: Board of Governors of the Federal Reserve System.

extent to which economic mobilization has already occurred. Whereas in 1941, apparently less than 20 percent of industrial production was destined for direct military use, during 1942 the estimated military proportion averaged well above 50 percent and by the final quarter of the year constituted roughly two-thirds of the total.³

Naturally the approximate proportion of industrial production representing war goods was much higher among the durable than among the nondurable manufactures, since new production of durable goods for civilian uses had been sharply curtailed by the year-end. Reflecting the heavy requirements for fuels and metals in the munitions and supply programs, the war portion of minerals output rose steadily throughout the year

Table 10.—Estimated Portions of Federal Reserve Industrial Production Index Represented by War and Civilian Output

[1935-39=100]

Item	1941	1942
Industrial production:		
Total index.....	156	180
War portion.....	28	99
Civilian portion.....	128	81
Percent war.....	18	55
Manufactures:		
Total index.....	161	189
War portion.....	29	104
Civilian portion.....	132	85
Percent war.....	18	55
Durable manufactures:		
Total index.....	193	250
War portion.....	51	183
Civilian portion.....	142	67
Percent war.....	27	73
Nondurable manufactures:		
Total index.....	135	140
War portion.....	12	40
Civilian portion.....	123	100
Percent war.....	9	29
Minerals:		
Total index.....	125	130
War portion.....	21	71
Civilian portion.....	104	59
Percent war.....	17	55

Source: U. S. Department of Commerce.

³ Estimates of the war and civilian composition of the industrial production index have been made both by the Board of Governors of the Federal Reserve System and by the Department of Commerce with very similar results.

and by the fourth quarter was estimated to be in excess of 80 percent.

Thus it appears that in aggregate terms industrial production for civilian use was more than a third lower than it had been in 1941. New civilian durable manufactures declined to less than half their level of the previous year. Only large inventories of consumer durable goods in the hands of manufacturers, wholesalers, and retailers prevented the curtailment in the flow of durable goods to consumers from being even more drastic than it was during the year. As these inventories of now irreplaceable consumer durables are exhausted, the flow to consumers will of necessity shrink to small proportions.

Production for civilians among the nondurable goods industries during the year just closed apparently declined less than one-fifth, although in some products the curtailment was much greater. In many of these cases, however, inventories were also relatively large and the real effects of the production cuts will not be felt on a broad scale until some time during 1943.

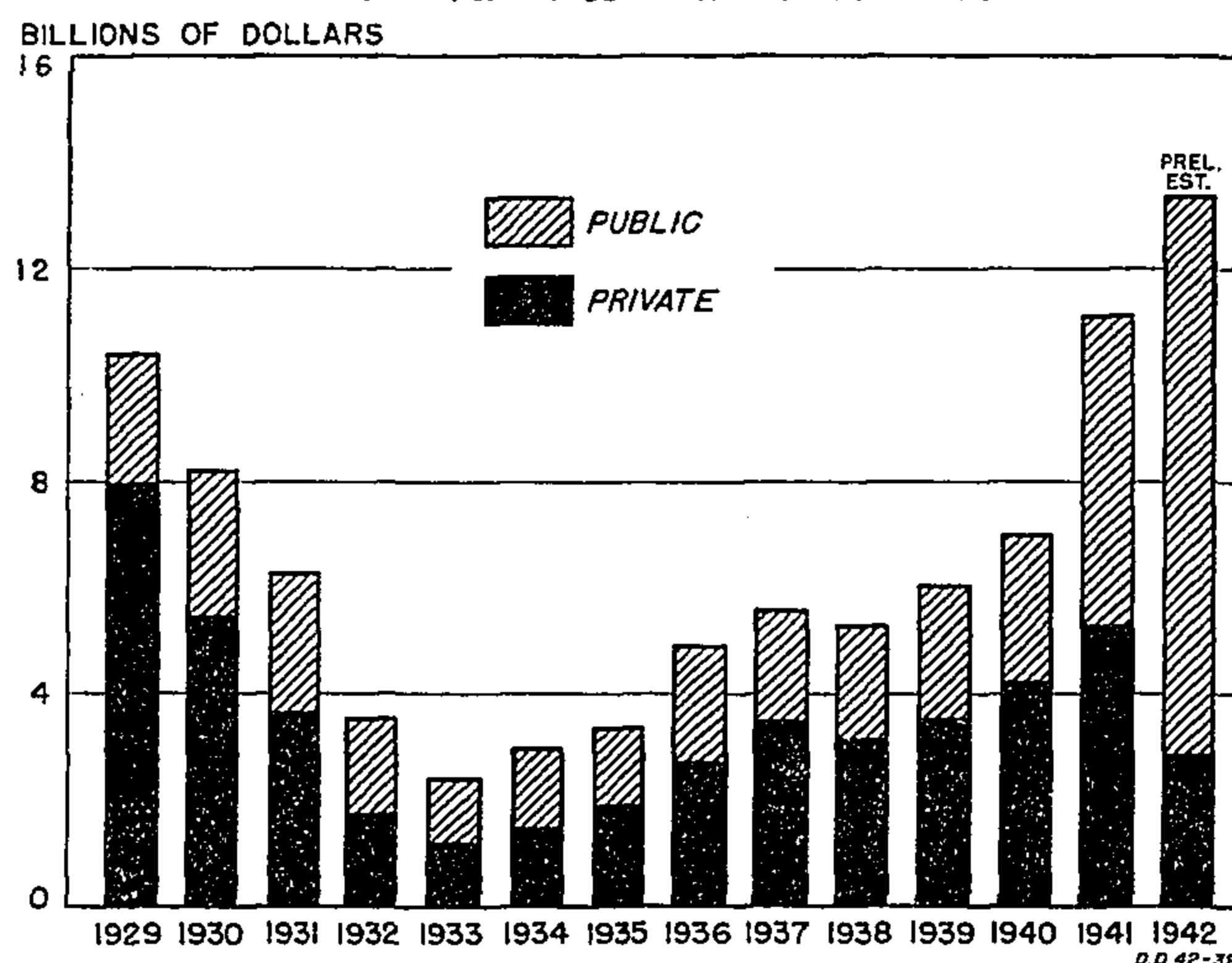
The classification of industrial production into war and civilian portions, presented in table 10, should be regarded as giving only very approximate results and as showing only in a rough way the relative impacts of the war program. Significance should not be attached to exact percentage points, which are necessarily estimated from incomplete and, in certain cases, fragmentary data. In making the estimates, only direct military and Lend-Lease supplies have been allocated to the war portion of the index, but the boundary line between military and civilian output is becoming increasingly difficult to draw and will have less and less meaning as we approach a maximum war effort.

Construction

Construction activity was another one of the many economic magnitudes establishing new records during 1942. The gain was concentrated entirely in the first 3 quarters of the year. The final quarter saw a decided drop because of curtailments necessitated by materials shortages. Private building was in lower volume but the decrease was far more than offset by the great expansion of public construction. Of the latter, the largest single share was for military and naval purposes but another large part was for publicly financed industrial facilities. Residential construction was cut in half, but the building of new plants, both on public and private account, was approximately 90 percent above the previous year. Most of this plant construction naturally represented new capacity available to the war program. Indeed the degree to which munitions output has been provided for by the construction of new plants rather than by the conversion of already existing facilities, is striking.

Despite the continuance of residential building at a fairly high level, housing difficulties became increasingly great in many war-plant areas to which thousands of

Chart 8.—Value of New Construction ¹



¹ Data do not include work-relief construction.

Source: U. S. Department of Commerce.

new workers migrated. This housing shortage was reflected in a decline in vacancy rates to new low levels.

Total construction activity during 1942 was valued at more than 13 billion dollars, with publicly financed construction accounting for more than 10 billions. While the increase in dollar volume over the preceding year was mainly attributable to increased volume of building, there occurred during the year a moderate increase in building costs. Late in the year, construction costs for buildings of all types were running on the average 6 or 7 percent above the levels of a year earlier. Rising materials and labor costs both contributed to the advance.

Table 11.—New Construction Activity in the United States by Function and Ownership
[Millions of dollars]

Item	1940	1941	1942
New construction, total ¹	6,951	11,145	13,558
Private, total	4,196	5,261	2,964
Residential building (nonfarm) ²	2,323	2,881	1,461
Nonresidential building	982	1,306	522
Industrial	423	678	314
All other ³	559	628	208
Farm construction	245	300	245
Dwelling	145	176	132
Service	100	124	113
Public utility ⁴	646	774	736
Public, total	2,755	5,884	10,594
Residential	205	479	600
Military and naval ⁵	510	2,059	5,013
Nonresidential building	497	1,671	3,385
Industrial	144	1,400	3,696
Other ⁶	353	271	139
Highway	946	1,013	671
Sewage disposal and water supply	143	115	107
All other Federal ⁷	353	425	310
Miscellaneous public service enterprises ⁸	101	122	58

¹ Does not include data for work-relief construction.

² Data for 1940 and 1941 prepared by the Bureau of Labor Statistics, U. S. Department of Labor; those for 1942 are preliminary estimates of the Department of Commerce.

³ Includes religious, educational, social and recreational, hospital and institutional, commercial, and miscellaneous nonresidential building.

⁴ Includes railroads, street railways, pipe lines, electric light and power, gas, telephone and telegraph utilities.

⁵ Includes cantonments, aeronautical facilities, navy yards and docks, army and navy hospitals, etc.

⁶ Includes public, commercial, educational, social and recreational, hospital and institutional, and miscellaneous public building.

⁷ Includes work done by Bureau of Reclamation, Indian Service, Forest Service, Army Engineers, National Park Service, Tennessee Valley Authority, Soil Conservation Service, and other Federal agencies not included elsewhere.

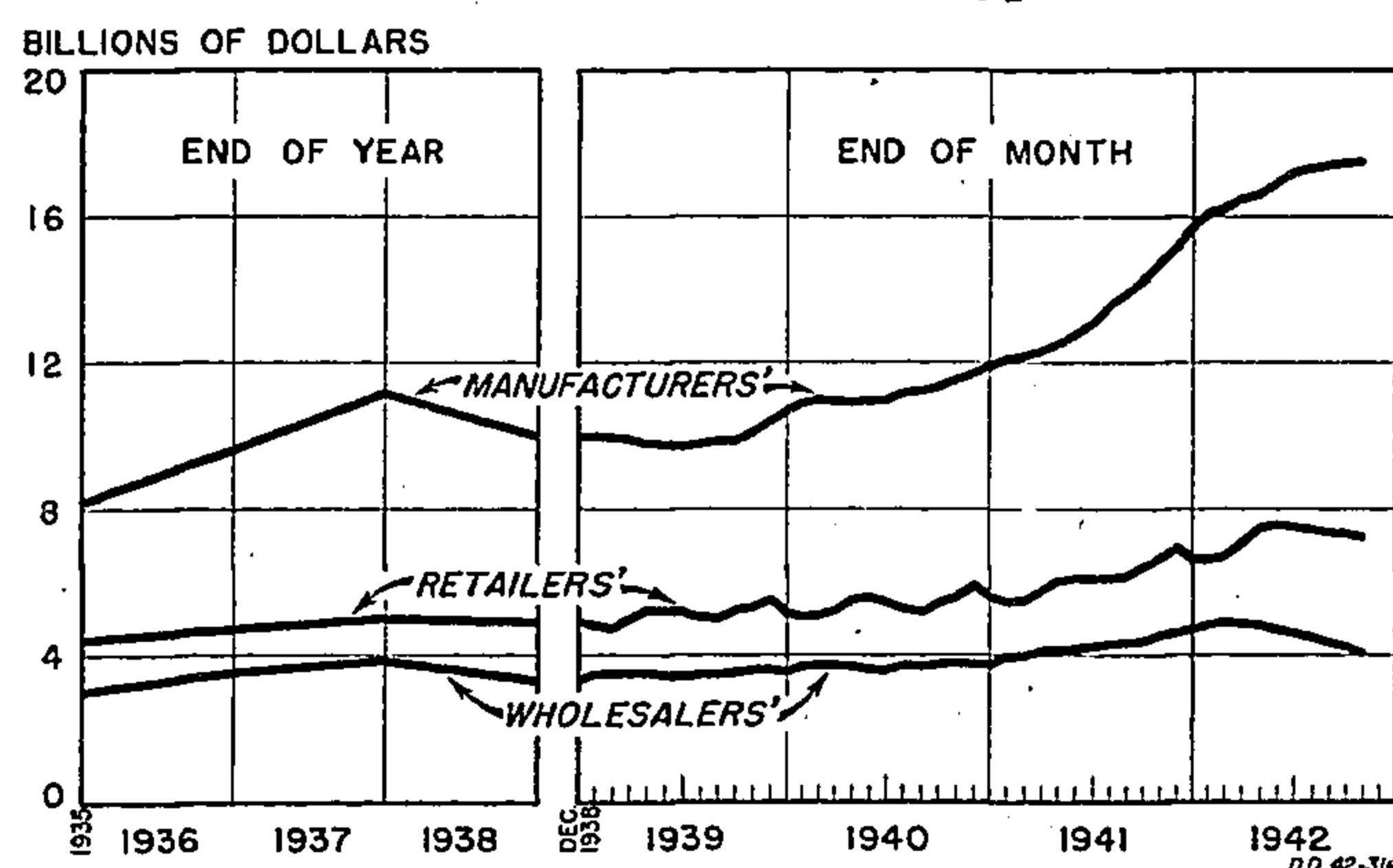
⁸ Includes such municipal enterprises as street railways and other transit systems, gas systems, ports, docks, harbors, airport tunnels, etc.

Source: U. S. Department of Commerce; data for 1942 are preliminary.

Manufacturers' Inventories

The increase in manufacturing production during 1942 was accompanied by continued accumulation of inventories. By the end of the third quarter, however, evidences of a substantial slackening off in the rate of inventory growth had become apparent.⁴ To a large extent this growth of stocks was an inevitable concomitant of expanding production. Nevertheless, there was evidence that in many individual cases, inventories had become excessive and were causing a maldistribution of critical materials that was hindering war production. These cases demonstrated the need for giving increased attention to inventories in the plans for controlling scarce materials as the war program approaches its peak.

Chart 9.—Value of Inventories by Type of Business



Source: U. S. Department of Commerce.

When dollar figures on manufacturers' inventories are broken down by stages of fabrication, it is seen that more than 40 percent of the total represents raw materials while the remainder represents work in process and finished products.⁵ One fact of significance about the inventory picture during 1942 is the decline in inventories of finished products which occurred during the third quarter, indicating that the flow of goods was being speeded to other industries or into distributive channels.

The problem of manufacturers' inventories is one aspect of the broader problem of scheduling the production requirements of the war program. Scarce raw materials must be distributed among all producers requiring them, yet no firm can be allowed to accumulate more than the minimum stocks necessary to continued production at the scheduled rate. Production-time must be cut wherever technically possible, thus lowering the ratio of work in process to the flow of finished products. Furthermore, the finished goods must be speeded to final users in a balanced relationship to

⁴ This is not so apparent from the dollar figures except in the case of nondurable goods industries where an actual decline occurred. But when allowance is made for the rising prices of goods in inventory the decreased rate of growth is clear.

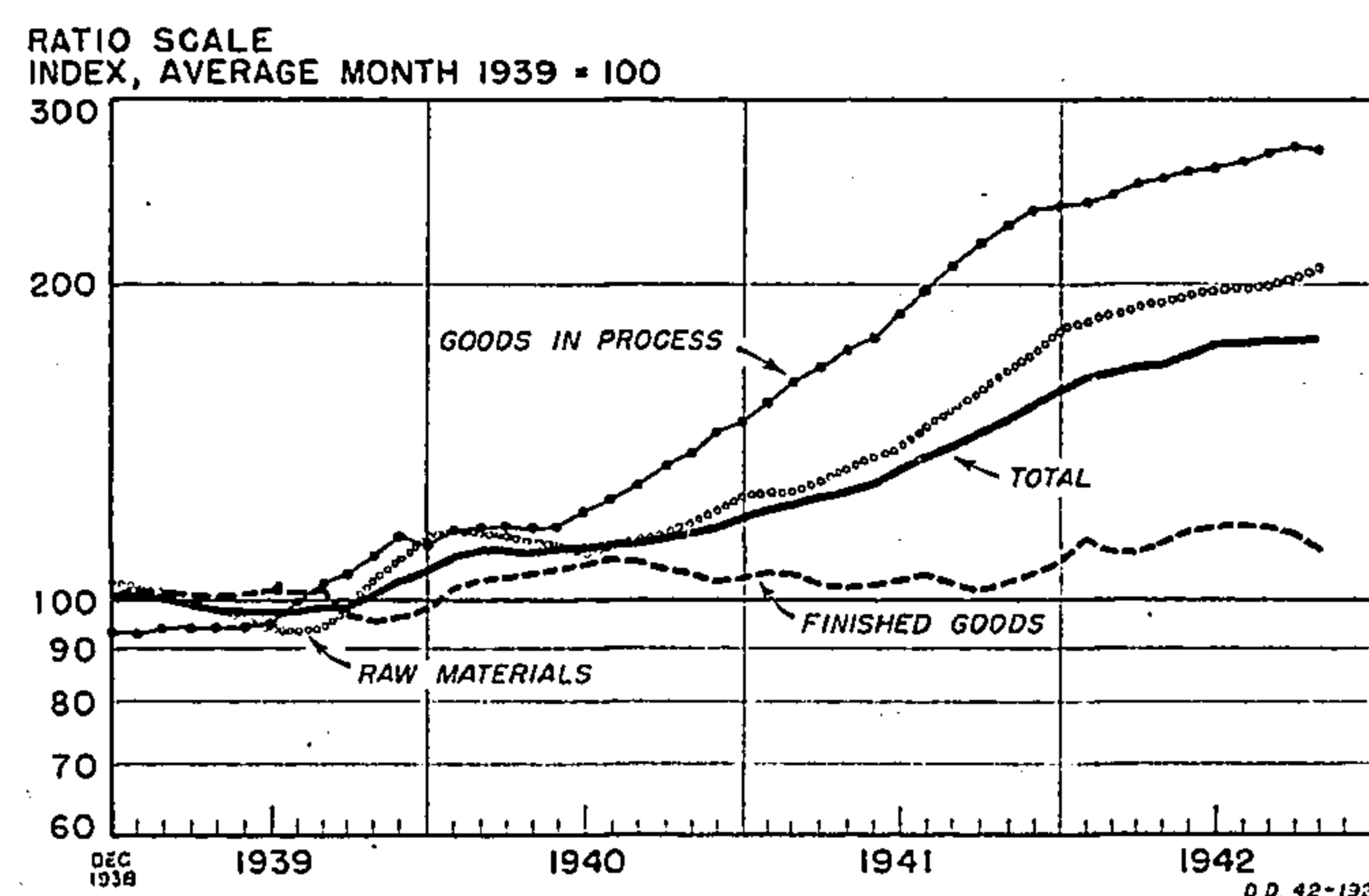
⁵ It should be emphasized that total figure for inventories of "raw materials" of manufacturing firms does not necessarily refer to raw materials in a technical sense. Rather it includes all products classified as "raw materials" by individual firms reporting. Since the classification may vary from firm to firm, the resulting aggregates can only approximate a technical classification of goods in inventory.

military and civilian needs. Excessive inventory accumulation at the finished-goods stage usually signifies, apart from transportation difficulties, some lack of balance in production programs and planning.

During 1942 progress was made toward correlating inventory holdings with production and end-product requirements, but this progress was largely the indirect result of controls over materials flow and of balancing the production program. Further progress toward a solution of the inventory problem may be expected from the direct inventory controls which take effect in 1943.

Total inventories of manufacturers have risen steadily in dollar value since the outbreak of the war,

Chart 10.—Manufacturers' Inventories by Stage of Fabrication¹



¹ Index is based upon the value of inventories at end of month.

Source: U. S. Department of Commerce.

and at the end of the fourth quarter amounted to about 17.5 billion dollars. A portion of the increase during the past year is attributable to the influence of rising prices and does not signify actual accumulation of stocks. While the true increase in physical quantities of goods carried in stock cannot be reliably estimated, owing to lack of information concerning the composition of inventories, it is probable that not more than half the dollar increase in inventories over the past year represented actual physical quantities.

Table 12.—Value of Manufacturers' Inventories, End of Quarter

[Millions of dollars]

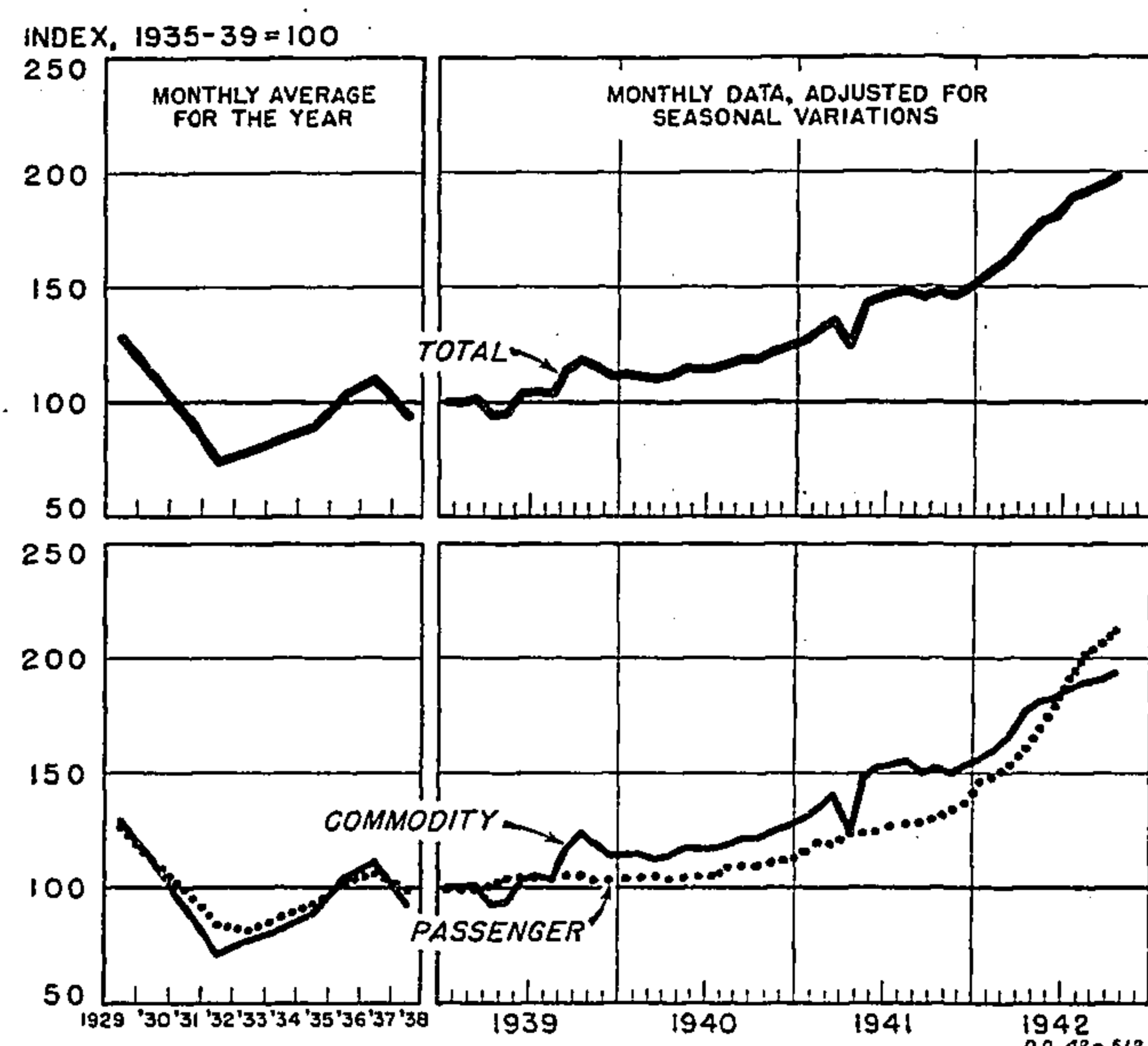
Year and quarter	Total manufacturing	Durable goods	Nondurable goods
1940:			
I.....	10,988	5,229	5,759
II.....	10,993	5,236	5,757
III.....	11,337	5,532	5,805
IV.....	11,920	6,021	5,899
1941:			
I.....	12,337	6,364	5,973
II.....	13,121	6,803	6,318
III.....	14,252	7,442	6,810
IV.....	15,747	8,140	7,607
1942:			
I.....	16,464	8,505	7,959
II.....	17,183	8,961	8,222
III.....	17,439	9,319	8,120
IV (estimated).....	17,500	9,400	8,100

Source: U. S. Department of Commerce.

Transportation

The high level of industrial production attained in 1942 was attended by a record volume of commodity transportation. Raw materials and finished goods had to be moved in ever larger quantities to support the expanded war program. Passenger travel also expanded, reflecting the increase in military and business activity as well as the decline of travel in private automobiles. Total transportation volume, including both commodity shipments and passenger movements, increased more than 25 percent during the year, according to the Department of Commerce index.⁶

Chart 11.—Volume of Transportation



Sources: Compiled by the U. S. Department of Commerce; for sources of basic data and method of constructing indexes see pp. 25-27 of the September 1942 Survey.

Increases in railroad, air, and pipe-line transport contributed to the advance of 22 percent in commodity movements. Transportation by motortruck increased slightly in spite of the parts and rubber shortages and the consequent restrictions made necessary by these shortages, while domestic water-borne traffic declined because of the diversion of shipping facilities to foreign trade and to supplying the overseas forces. Among the bright spots in the 1942 commodity-transportation picture was the record movement of iron ore on the Great Lakes. At the close of the shipping season, the ore moved was nearly 15 percent above the 1941 volume, the previous record haul.

Passenger travel during the year registered phenomenal increases, the aggregate volume being more than 40 percent in excess of the previous year. All forms of

passenger travel except by air showed substantial gains. Commercial air travel declined only because of the diversion of planes to the armed services and to air transport of commodities.

Much of the increase in passenger travel during the year represented troop movements and travel by the armed forces in line of duty. Indeed by September 1942 an estimated 25 percent of total railway passenger revenue was accounted for by the War Department. Most of the other added passengers were traveling in furtherance of the war program and the heightened industrial activity and also because of the curtailed use of private automobiles.

Table 13.—Volume of Transportation¹

[Index, daily average 1935-39=100]

Item	1940	1941	1942	Percent change 1942 from 1941
Commodity and passenger, total.....	115	141	181	+28
Total excluding local transit.....	117	145	188	+30
Commodity, total.....	118	145	181	+25
Railroad.....	115	146	195	+34
Air.....	156	205	337	+64
Intercity motortruck.....	136	168	180	+7
Oil and gas pipe lines.....	113	123	132	+7
Domestic water-borne.....	123	126	92	-27
Passenger, total.....	107	126	180	+43
Total, excluding local transit.....	112	142	234	+65
Railroad.....	108	133	242	+82
Air.....	226	294	290	-1
Intercity motorbus.....	108	143	216	+51
Local transit.....	102	112	139	+24

¹ Indexes for commodity and passenger traffic (except local transit) are based upon ton-miles and passenger-miles, respectively; index for local transit is based upon number of passengers. All 1942 data are partially estimated.

Source: U. S. Department of Commerce.

The bulk of this increased transportation burden fell on the railroads. They accomplished a remarkable record in handling the volume with only small increases in equipment. Because of the expansion in their traffic, railroad earnings gained one-third to record the best year in recent history. Thus by the end of the year, the Office of Price Administration was moving to set aside rate increases granted earlier in the year while railway labor was preparing to petition for higher wages.

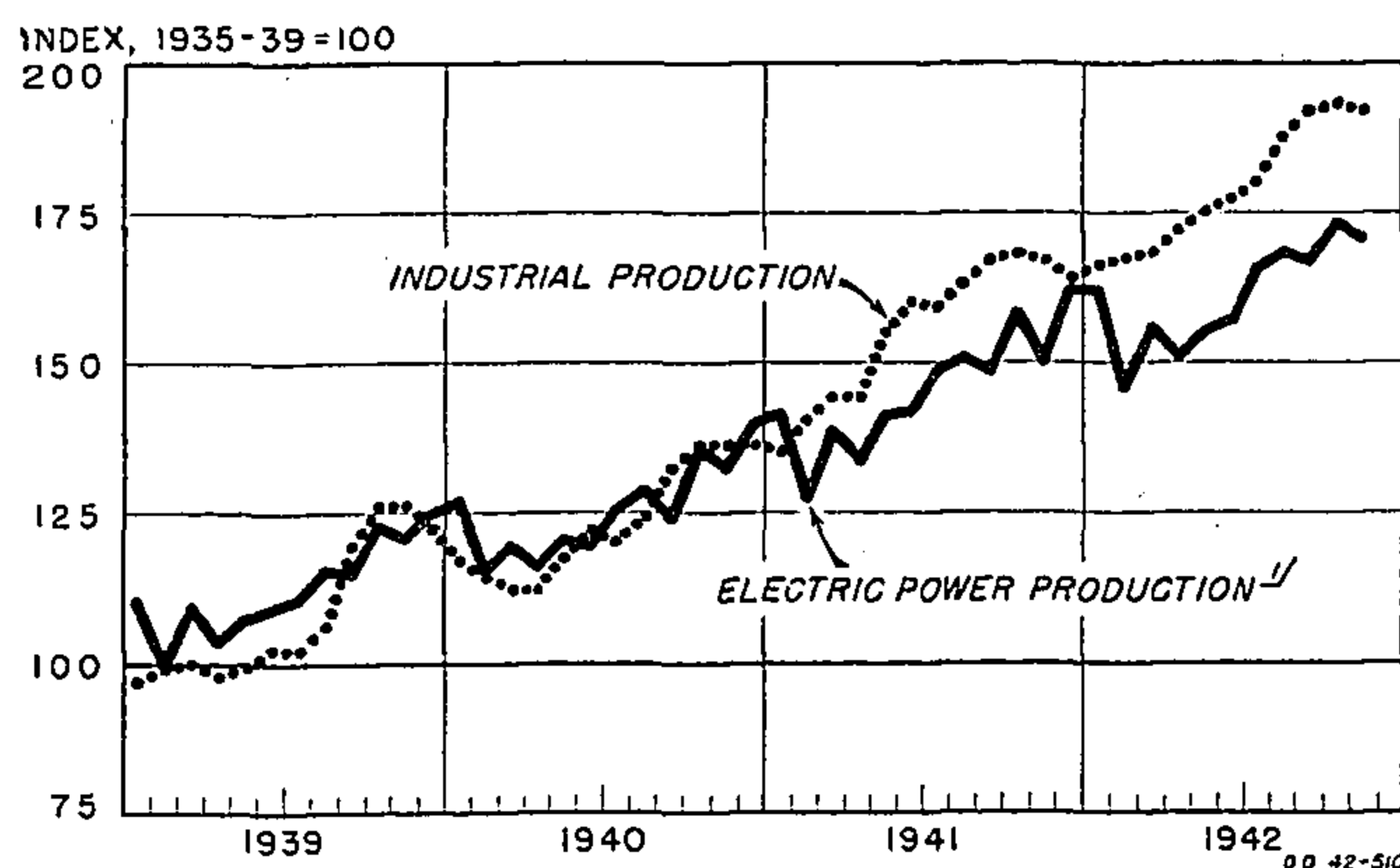
Despite the immense progress made in ship construction during 1942, war requirements for shipping space also multiplied, and the end of the year found shipping still the major deficiency in the program to conduct offensive military operations. For a substantial part of the year sinkings continued to exceed new construction. After a favorable balance had been restored by the increase in launchings and the success of the anti-submarine campaign, the growing output of vessels continued to be matched by expanding military requirements. The great geographical dispersion of our military operations plus the increased amounts of equipment required per soldier kept the shipping situation critical throughout the year. Further curtailment of civilian use of merchant shipping was necessary to meet the growth in military requirements.

⁶ This index which is based on ton-miles in the case of commodity transport and passenger-miles in the case of passenger travel, more accurately reflects the increase in transportation during 1942 than carloadings or other commonly used indexes. This is because the Commerce index takes account of both the increased length of hauls during the year and the larger loads per freight car.

Electric Power

Supplies of electric power, after falling well below requirements in certain areas during 1941, were generally higher during the year just closed. Such shortages as occurred were localized and temporary. Power production, for the country as a whole, increased about 13 percent over the previous year, but the geographical pattern of the increases varied in accordance with the uneven incidence of demand, which came increasingly from war plants. Industrial consumption accounted for the bulk of the advance in power requirements, although residential and commercial use also increased moderately, as may be seen from table 14. The close relationship of electric power output to the general level of industrial production, which is apparent from chart 12, indicates the importance of this source of motive power to the war program.

Chart 12.—Electric Power and Industrial Production, without Adjustment for Seasonal Variations



¹ Data include electric energy produced by electric railways, electrified steam railroads, and publicly-owned noncentral stations, and that sold by industrial (mining and manufacturing) plants; industrial plants selling less than 10,000 kilowatt-hours a month are not included. Data in chart on page 2 do not include the first three items mentioned in this note.

Sources: Index of electric power production computed from data of the Federal Power Commission; index of industrial production, Board of Governors of the Federal Reserve System.

The ability of the electric-power industry to cope more effectively with the larger demand during 1942 was dependent upon a number of factors. Net additions to capacity, amounting to roughly 2,700,000 kilowatts, or 6 percent, were made during the year, in spite of the fact that plans for capacity additions had to be curtailed somewhat because of metal shortages. This constituted the largest capacity expansion since 1925. Likewise some new transmission lines were brought into use, thus permitting a better distribution of available power, but this program also suffered curtailment under War Production Board limitations. In spite of the increased demands for electric power during 1942, peak loads were only 5 percent above the previous year so that the addition of new capacity raised utility reserves by 1,000,000 kilowatts or more than 10 percent.

The chief factor in the improvement in the power situation was the fact that multiple-shift operations in

Table 14.—Sales of Electric Power to Ultimate Consumers

[Billions of kilowatt-hours]

Item	1940	1941	1942
Total ¹	118.6	140.1	158.8
Commercial and industrial	81.9	100.7	115.4
Large light and power	59.6	76.1	88.0
Small light and power	22.4	24.6	27.4
Residential or domestic	23.3	25.1	27.0
Railways and railroads	5.9	6.1	6.6
Other public authorities	2.7	3.1	4.0
Rural	2.0	2.4	2.9
Municipal	2.0	2.1	2.0
Interdepartmental	.7	.6	.9

¹ Individual items will not necessarily add to totals because of rounding.

Source: Edison Electric Institute.

industrial plants produced a more even distribution of load requirements, thus permitting more effective utilization of available generating capacity. In addition water-supply conditions in predominately hydroelectric areas were relatively more favorable.

Foreign Trade

The flow of foreign trade during 1942 changed markedly both in structure and in geographical distribution under the world-wide impact of war conditions. Specific details concerning this changing pattern of our international trade cannot be published but the over-all picture may be described briefly.

Exports registered a sharp expansion during the year just closed but the increase was entirely accounted for by larger Lend-Lease shipments. Exports other than Lend-Lease declined. In aggregate terms the increase in value of total exports approached 60 percent but rising prices as well as increased physical volume contributed to this advance.

Imports declined sharply during the year, primarily because of the loss of many of our normal sources of supply for products such as rubber, silk, tin, and others which had previously been imported in large volume. Shortages of shipping space also cut the volume of imports greatly.

Lend-Lease an Increasing Share of Foreign Trade.

Lend-Lease assistance to the Allied nations rose rapidly during 1942 and became an increasingly large share of total exports. Total Lend-Lease transfers from the start of the program through November 30, 1942,

Table 15.—Dollar Volume of United States Foreign Trade

[Millions of dollars]

Item	1939	1940	1941	1942 (11 months)	Percent change 11 months 1942 over 11 months 1941
Total exports, including reexports	3,177	4,023	5,146	7,019	+56.2
Exports of United States merchandise	3,123	3,934	5,019	6,954	+58.6
General imports	2,318	2,625	3,345	2,385	-20.5
Imports for consumption	2,276	2,541	3,222	2,376	-17.6

Source: Bureau of the Census, Department of Commerce.

amounted to nearly 7.5 billion dollars. Of this, nearly 2.4 billions were transferred during the final quarter of the period, and more than 6.5 billion during our first year of war.⁷ By October 1942 Lend-Lease shipments accounted for 70 percent of total United States exports.

Exports of military items under Lend-Lease grew steadily during 1942 both in dollar volume and as a proportion of total Lend-Lease exports. They amounted to 56 percent of that total during October 1942. At this rate an estimated 15 percent of our total munitions production was being exported, if account is taken of both Lend-Lease and the much smaller direct purchases by foreign governments. Exports of foodstuffs and of industrial materials, chiefly metals, have been increasing in dollar volume but decreasing as a proportion of total Lend-Lease exports during the past year.

By country of destination, approximately 40 percent of Lend-Lease exports during October were sent to the United Kingdom, as against 21 percent to the Soviet Union and 39 percent to all other areas, including the Middle and Far East.

As the size of our armed forces abroad increased, reverse Lend-Lease, in the form of subsistence and other products for military use, became increasingly important during 1942. Altogether, Lend-Lease must be regarded as a unique evidence of United Nations' cooperation and unity.

National Income

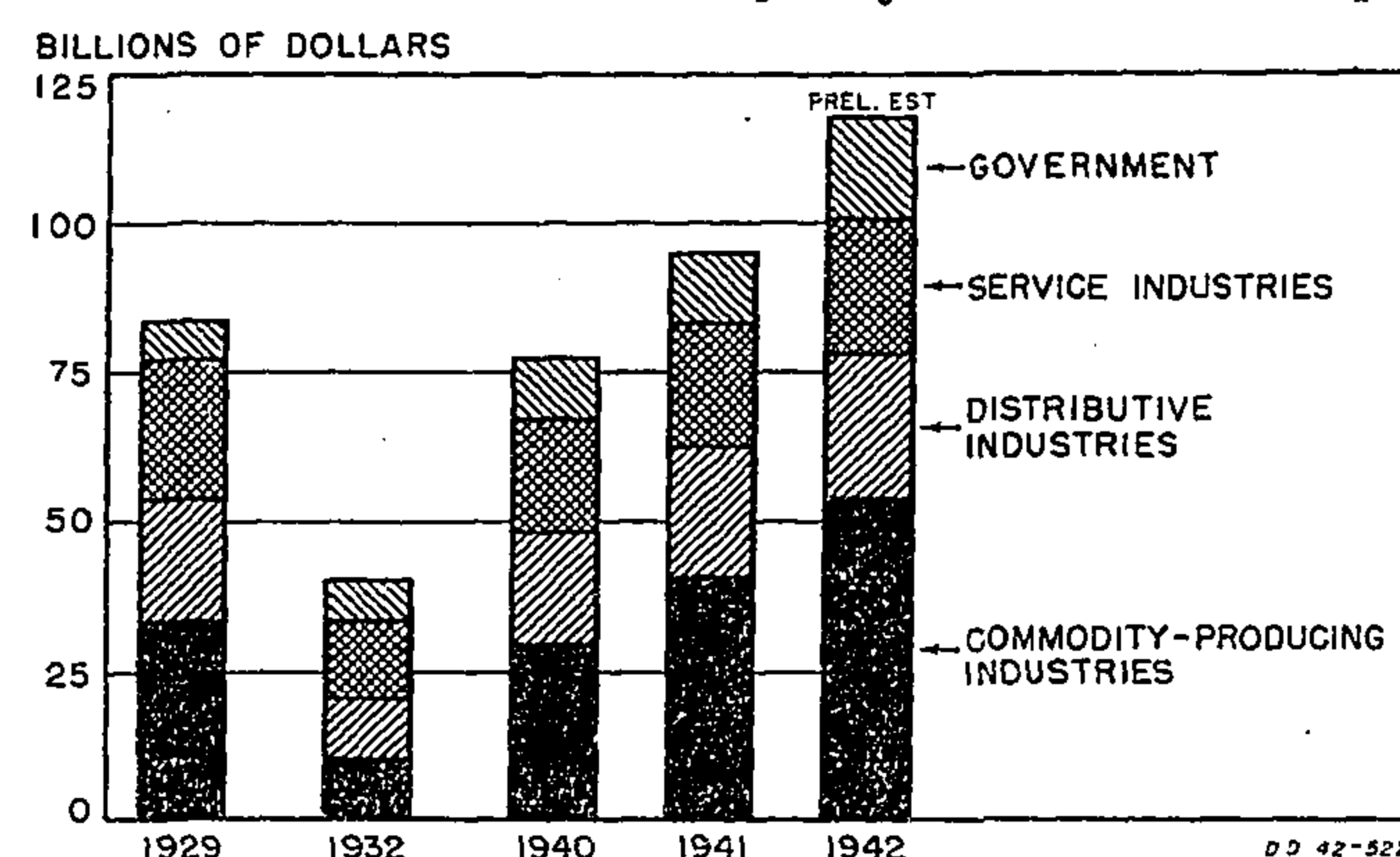
The extensive changes in output and in economic activity which are reported in the preceding pages may all be summarized conveniently in terms of national income statistics. These statistics furnish comprehensive measurements of the economic expansion which occurred during 1942 under the stimulus of the war program. For example, the whole national income, measuring the net value of goods and services produced, increased sharply to a record total of more than 117 billion dollars for the year. Virtually all major industrial groups contributed more or less substantially to the income expansion during 1942. Income originating in agriculture expanded more than 40 percent over the previous year as did income originating in Government. Manufacturing registered a 30 percent gain while both construction and transportation accounted for more than 20-percent increases each. Other major industrial groups made somewhat smaller gains.

The contribution of these industry groups to the national income rise reflected the changes in their volume of output as well as changes in prices.

In the case of agriculture, expanded Lend-Lease, military, and civilian demands prompted a record volume of production. This was accompanied by a steady upward trend of agricultural prices since these

⁷ Transfers under Lend-Lease are made before goods are loaded aboard ship. Consequently an estimated 10 percent of goods transferred have not actually been shipped. See the President's Seventh Report to Congress on Lend-Lease Operations, p. 8.

Chart 13.—National Income by Major Industrial Groups



Source: U. S. Department of Commerce.

were perhaps the freest from control among all elements of the price structure.

In Government the increased generation of income resulted chiefly from the addition of personnel to military agencies, as their functions expanded to meet the wartime emergency. In manufacturing, transportation, and construction the income advances flowed chiefly from the record increases in the volume of activity previously discussed.

Table 16.—National Income by Distributive Shares

[Billions of Dollars]

Item	1939	1940	1941	1942
Total national income ¹	70.8	77.3	94.7	117
Total compensation of employees.....	48.3	52.8	65.0	83
Salaries and wages.....	44.4	49.1	61.3	80
Other labor income.....	3.8	3.7	3.6	3
Entrepreneurial income and net rents.....	13.3	13.8	17.4	22
Interest and dividends.....	8.8	8.4	9.9	10
Corporate savings.....	.5	1.2	2.6	3

¹ All figures for 1942, which are preliminary, have been rounded to the nearest billion.

² Components will not necessarily add to totals because of rounding.

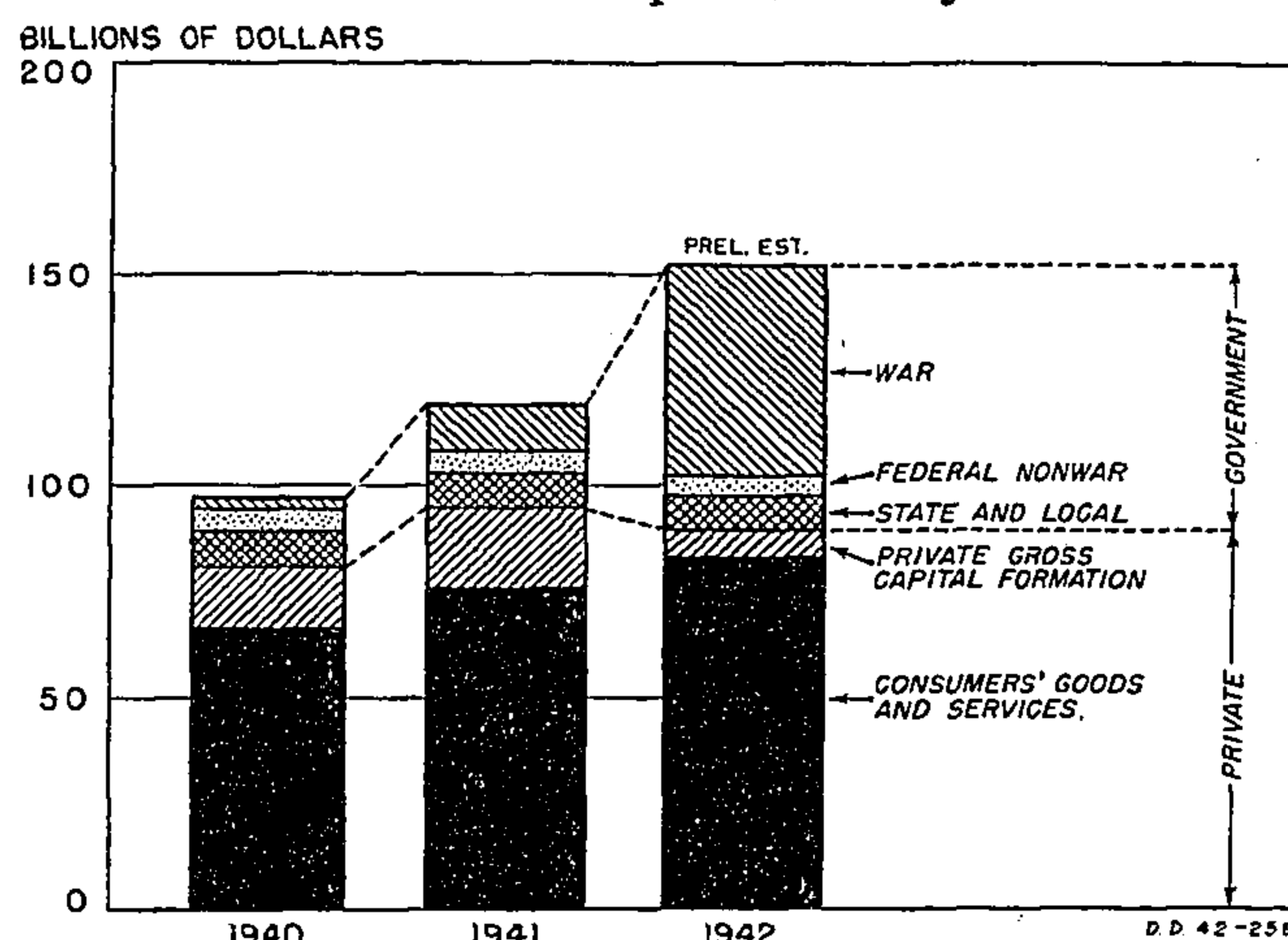
Source: U. S. Department of Commerce.

When analyzed by distributive shares rather than by industrial origin, virtually all of the 1942 income expansion is seen to be the result of increases in wages and salaries, with entrepreneurial income also contributing slightly to the expanded income flow.⁸ Property income, measured after taxes, made virtually no gain during the year. This concentration of the 1942 income rise among wage and salary earners suggests that important changes may have occurred in the size distribution of consumer income. Reliable data for answering this question unequivocally, however, are lacking.

The gross national product, for certain purposes a comprehensive measure of the total value of output more useful than the national income, increased approximately 28 percent during 1942 to total more than 150 billion dollars for the year. Of this 32-billion dollar

⁸ Entrepreneurial income, or the net income of unincorporated business establishments, contains elements both of wages and of profit. Since this type of income is generated chiefly in the trade and service industries where small firms are numerous and where much labor is performed by proprietors, it is likely that the wage element bulks large in total.

Chart 14.—Gross National Expenditures by Use of Product



gain in gross national product, it is roughly estimated that at least a third and possibly more was accounted for by rising prices, with the remainder representing higher physical volume. Determination of the true increase in physical volume of all finished output during 1942 is difficult because of the marked changes in the composition of commodity flow which occurred under the impact of the war program, and also because of the lack of satisfactory price series covering munitions.

Table 17.—Gross National Product or Expenditure

[Billions of dollars]

Item	1940	1941	1942 ¹
Gross national product or expenditure.....	97.1	119.4	152
Government expenditures for goods and services.....	16.3	24.6	62
Federal Government.....	8.0	16.4	54
War.....	2.8	11.2	50
Percent war to total national product.....	3	9	33
Other Federal Government.....	5.2	5.2	4
State and local government.....	8.3	8.2	8
Output available for private use.....	80.8	94.9	90
Private gross capital formation.....	14.6	19.1	8
Construction.....	4.5	5.5	3
Producers' durable equipment and other.....	10.1	13.6	5
Consumers' goods and services.....	66.2	75.7	82
Durable goods.....	8.3	10.3	7
Nondurable goods and services.....	57.9	65.5	75

¹ Estimates for the year, which are preliminary, have been rounded to the nearest billion and will not necessarily add to the total.

Source: U. S. Department of Commerce.

The growth of war expenditures, amounting to nearly 40 billion dollars during the year, was more than responsible for the entire dollar increase in gross national product.⁹ Private capital formation was cut to less than half its 1941 volume. Much of this shrinkage represented, of course, merely a shift from private to public financing, so that total capital formation both on private and public account did not necessarily decline.

⁹ It should be borne in mind that the war expenditures which are compared with gross national product represent all those, and only those, Federal Government war outlays, whether within or outside the budget, which constitute a draft upon output produced in continental United States. Thus while expenditures by subsidiaries of the Reconstruction Finance Company are included, offshore expenditures are excluded. For a more complete explanation of this comparison, see the March, May, and August 1942 issues of the Survey.

Consumer Expenditures

Despite the scale on which new production of certain consumption commodities was reduced during 1942, inventories were so large that the flow of consumer goods to individuals declined only slightly in real terms from the peak level of the previous year. Whereas in 1941 the total flow of consumption commodities and services had been nearly 76 billion dollars, in 1942 the total, valued in 1941 prices, declined only to 74 billions. Significant changes occurred in the composition of this commodity flow, as durable goods generally declined, whereas food, apparel, and services registered slight advances.

Maintenance of the flow of consumer goods almost at peak levels, did not, however, prevent the occurrence of an increasing number of shortages, as consumer demand, fed by the rising tide of income payments flowing from war production, advanced steadily. In dollar terms, consumer expenditures, including the consumption of institutional residents, reached a level of about 82 billion dollars, as against the figure of less than 76 billion for 1941. Had it not been for the effectiveness of price control, the 1942 figure would undoubtedly have been much higher, since the 82-billion dollar expenditure is considerably below the proportion of their incomes that consumers have spent in previous years.

Food purchases appear to have increased more than 20 percent in dollar terms, while expenditures for clothing, apparel, and for services related to apparel also increased appreciably. The drop in consumer expenditures for durable goods was fairly well spread over most commodity groups. Large inventories of some products such as jewelry, sports equipment, and household utensils, however, prevented any decrease in consumer expenditures for these products as compared with 1941.

In real terms the pattern of consumer expenditures, shown in table 18, changed appreciably during the year as a result of the relative scarcity of certain products, the uneven increases in consumer incomes, and the changes in living habits brought about by the war.

The changing pattern of consumer expenditures during

Table 18.—Flow of Finished Commodities and Services to Consumers, by Selected Groups

[Billions of 1941 dollars]

Item	1939	1940	1941	1942 ¹
Total consumption commodities and services ²	65.9	69.5	75.8	74
Electrical goods.....	.9	1.1	1.4	1
Furniture and furnishings.....	3.6	4.0	4.7	4
Fuels.....	1.5	1.7	1.8	2
Automobiles and automotive products.....	4.7	5.4	5.9	3
Apparel and accessories.....	7.0	7.2	8.1	8
Food, tobacco, meals, and beverages.....	22.5	23.6	25.1	26
Other commodities and services.....	25.6	26.6	28.8	30

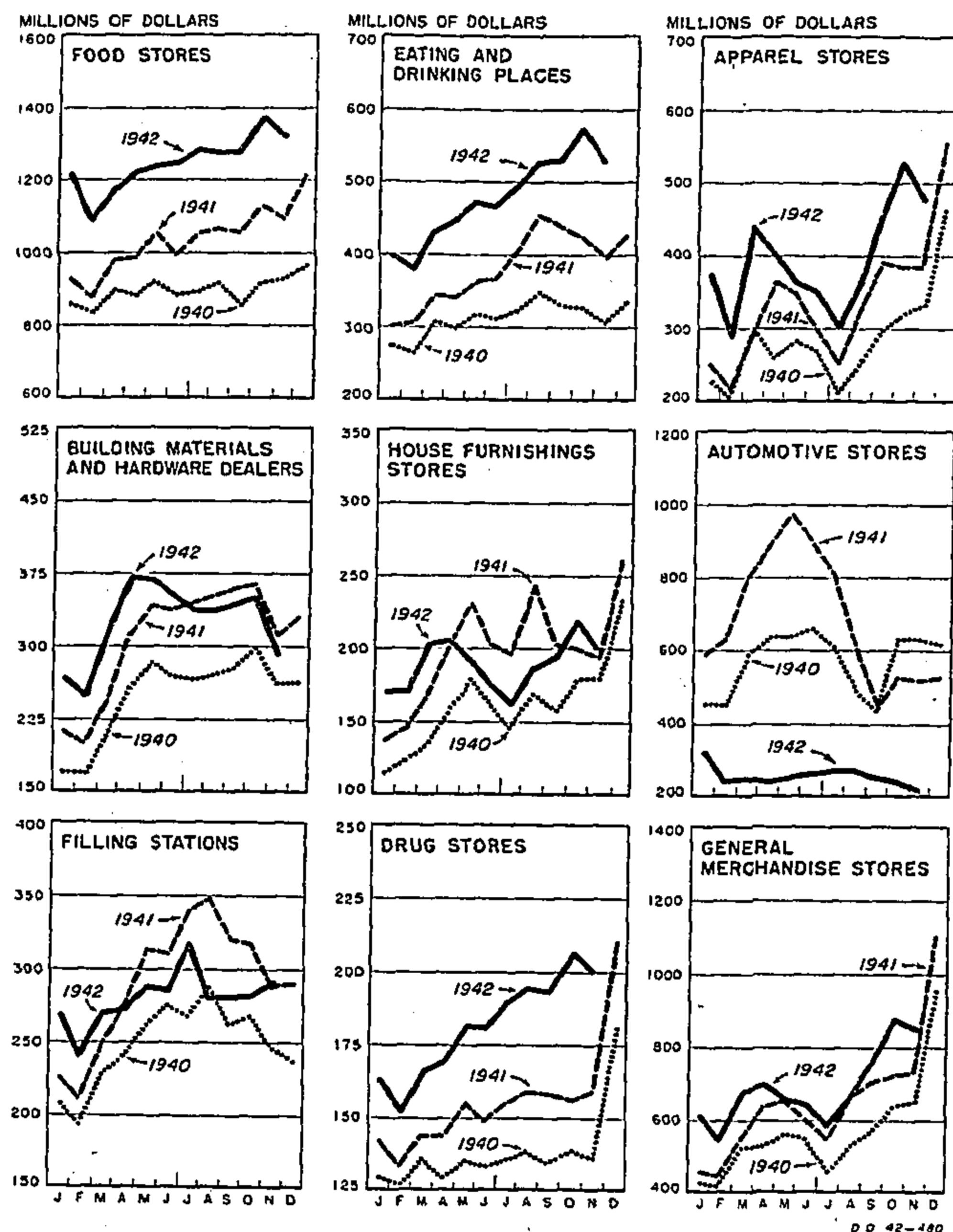
¹ Figures for 1942, which are preliminary, have been rounded to the nearest billion, and will not necessarily add to the total.

² Including institutional, but excluding governmental purchases.

Source: U. S. Department of Commerce.

1942, as may be seen from chart 15, was also reflected in sales of retail stores. Sales of food stores and of eating and drinking places ran well above their 1941 levels, reflecting chiefly the advance in consumer buying power over the previous year. At apparel stores the increase in sales was less marked though clear. Sales at house-furnishing stores ran above preceding year levels for the first quarter but slumped during the remainder of the

Chart 15.—Sales of Retail Stores



Source: U. S. Department of Commerce.

year as goods shortages began to appear. Automotive sales were well below those of 1941 because of stoppage of automobile production and rationing of tires and gasoline. Filling-station sales also reflected the gasoline rationing. Drug stores appear to have benefited as much as any retail trade group from the income expansion, and sales ran far above the corresponding months of 1941. Trends in general merchandise sales were mixed although a small gain for the year is apparent.

In general the supply of consumption commodities during 1942 exceeded all expectations. The smallness of the cut which occurred in spite of the extensive diversion of resources from the consumer-goods industries is a tribute to the economic potential of the American economy, as well as a significant commentary upon the gradualness of our war mobilization.

Despite the heavy volume of consumer purchases during 1942 and the stoppage of production of many types of consumer goods, inventories of merchandise

Table 19.—Sales of Retail Stores, by Kinds of Business, 1939-42

[Billions of dollars]

Item	1939	1940	1941	1942
All retail stores.....	42.0	45.8	54.2	56.2
Durable goods stores.....	10.4	12.2	14.9	9.9
Nondurable goods stores.....	31.7	33.7	39.3	46.3
By kinds of business:				
Food stores.....	10.2	10.8	12.4	15.2
Eating and drinking places.....	3.5	3.8	4.6	5.8
Apparel stores.....	3.3	3.4	4.1	5.0
Filling stations.....	2.8	3.0	3.5	3.3
Building materials and hardware dealers.....	2.7	3.0	3.7	3.8
Household furnishing stores.....	1.7	1.9	2.4	2.3
Automotive stores.....	5.5	6.8	8.2	3.0
Drug stores.....	1.6	1.6	1.9	2.3
General merchandise stores.....	6.5	6.8	7.8	8.8
Other retail stores.....	4.2	4.7	5.6	6.7

NOTE.—Durable goods stores include building materials and hardware, household furnishings, automotive, and jewelry (included in other retail) stores. Nondurable goods stores include all other stores. Due to rounding, group figures do not necessarily add to totals for all retail stores. Data for 1942 are preliminary estimates.

Source: U. S. Department of Commerce.

in retail and wholesale trade held up remarkably well in dollar volume throughout the year, as may be seen from table 20. At the close of the third quarter, total inventories in retail and wholesale trade amounted to 11.6 billion dollars, valued however in prices somewhat higher than the prices of goods carried in inventory a year earlier. The decline in wholesale inventories began in the second quarter, while the turning point in retail inventories came a quarter later, reflecting of course the transfer at wholesale of many irreplaceable goods. Both retail and wholesale inventories decreased sharply during the final quarter of the year as a result of the record volume of Christmas trade.

Table 20.—Value of Inventories in Wholesale and Retail Trade

[Millions of dollars]

Year and quarter	Total	Wholesale	Retail
1940:			
I.....	8,938	3,738	5,200
II.....	8,977	3,581	5,396
III.....	9,131	3,745	5,386
IV.....	9,279	3,730	5,549
1941:			
I.....	9,806	4,078	5,728
II.....	10,333	4,220	6,113
III.....	10,807	4,334	6,423
IV.....	11,334	4,697	6,637
1942:			
I.....	11,986	4,899	7,087
II.....	12,128	4,632	7,496
III.....	11,641	4,245	7,396

Source: U. S. Department of Commerce.

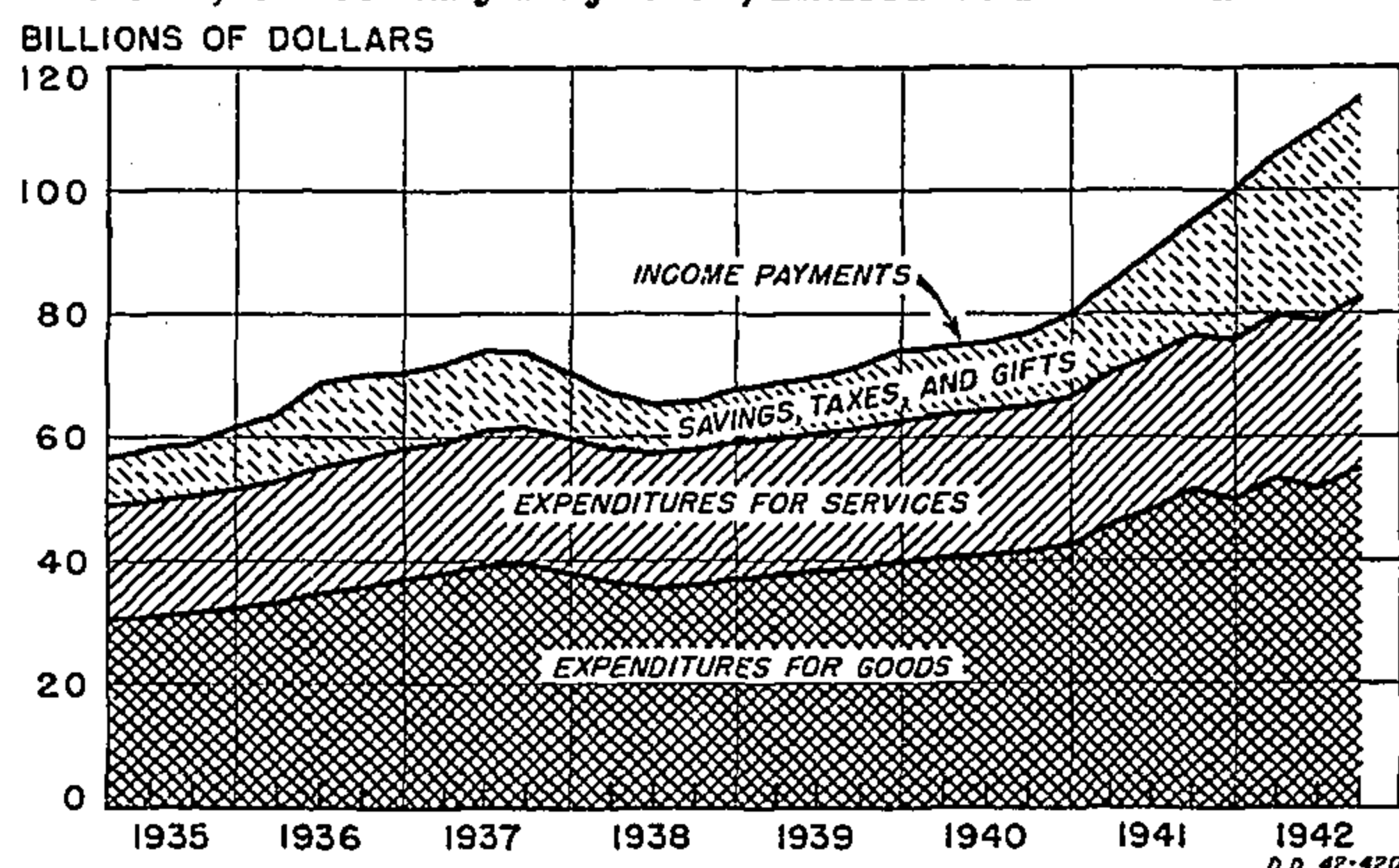
Late in the year, inventory controls for large wholesalers and retailers were announced, to take effect in the second quarter of 1943. These controls, being based on inventory-sale ratios during past periods, will probably not be the chief factor forcing contraction of inventories in the aggregate, although they undoubtedly will prompt a better distribution of available stocks among outlets.

Consumer Income and Savings

The steady growth of consumer income during 1942 stemmed from at least three chief factors. One was

the general increase in employment in war-stimulated industries coupled with the steady upgrading of workers as man-power became increasingly scarce. A second was the record growth of farm earnings. The third was the upward surge of wage rates and earnings which remained largely uncontrolled throughout the greater part of the year. As a result principally of these factors, income payments to individuals advanced to record levels, totaling approximately 114 billion dollars for the year. Higher tax payments absorbed only a small

Chart 16.—Income Payments to Individuals by Use: Quarterly Data, Seasonally Adjusted, Raised to Annual Rate



Source: U. S. Department of Commerce.

fraction of the increase, and consumer dollar expenditures were prevented from rising higher by goods shortages, price control, and rationing. Hence much of the income rise was naturally diverted into savings, which are estimated at approximately 26 billion dollars for the year or roughly double their 1941 volume.

The outstanding fact about these savings is their predominately liquid character. This is evident from the details presented in table 21. The liquidity is, of course, partly a result of the abnormal or semi-automatic character of a large part of the current savings during the year.

Table 21.—Net Savings of Individuals by Use of Funds

[Billions of dollars]

Fund	1940	1941	1942 ¹
Total net savings of individuals.....	7.4	12.9	26
Current savings held as currency or as bank deposits.....	3.6	5.6	11
Current savings invested in Government War bonds, series D and E.....	1.0	1.8	6
Current savings invested in private insurance.....	1.7	2.1	2
Current savings applied to reduce consumer short-term indebtedness.....	-1.2	-.5	4
Current savings held in other forms.....	2.3	3.9	9

¹ Estimates for 1942, which are preliminary, have been rounded to the nearest billion and will not necessarily add to totals.

Sources: Securities and Exchange Commission, U. S. Treasury Department, and U. S. Department of Commerce.

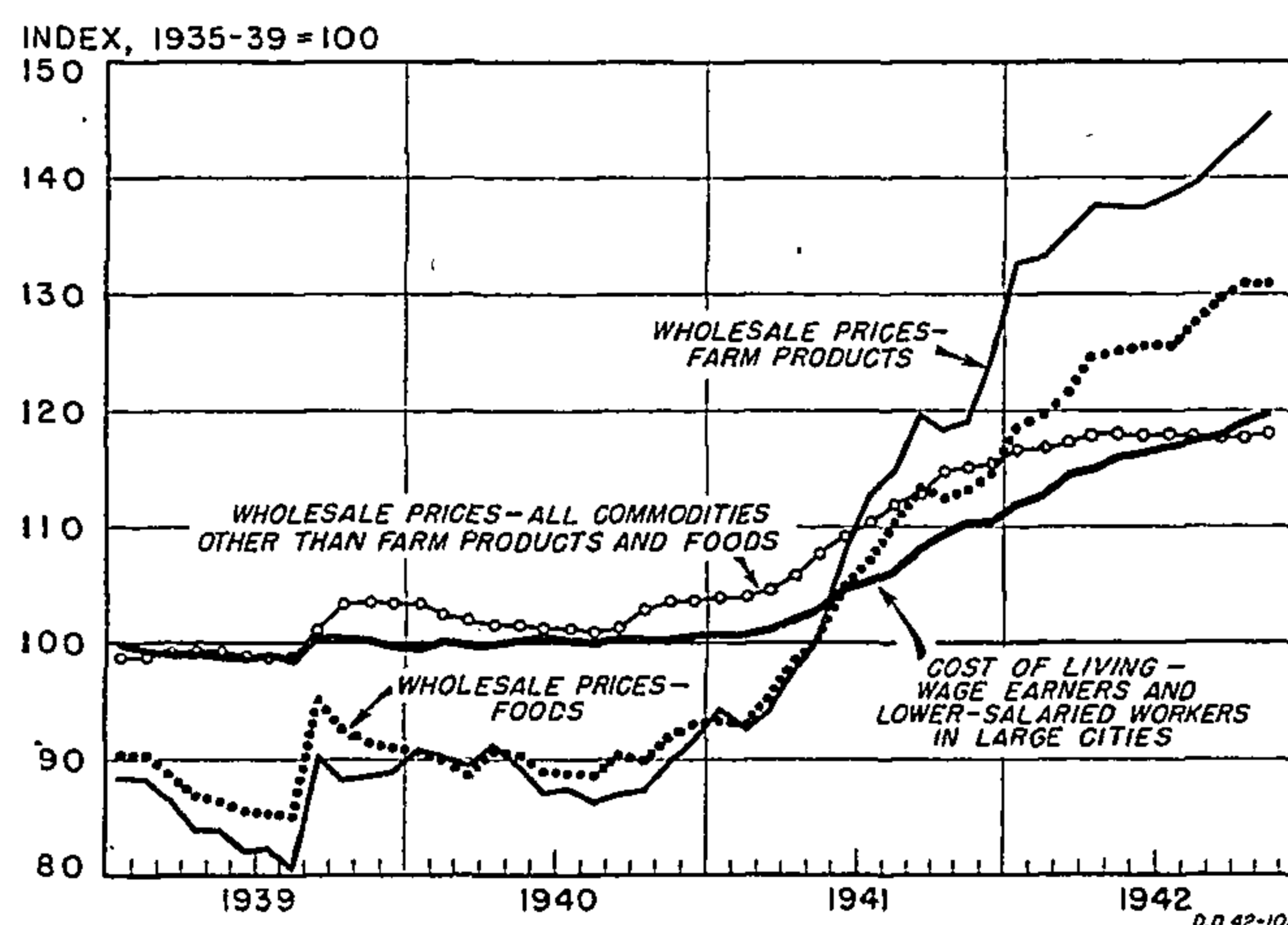
The magnitude of their savings during 1942 is also indicative of the extent to which consumers as a whole have benefited from the price-control program.

Commodity Prices and the Cost of Living

The brisk rise of prices in 1942 brought the average of wholesale commodity prices above the 1929 level. Similarly the cost of living by December had very nearly risen to the 1929 average level.

The price situation has been so exhaustively discussed in the course of the year that bare mention of the governing basic factors will suffice here. In simplest terms it was a case of effective demand outrunning supply at previous lower price levels and forcing prices to move progressively higher throughout the year.

Chart 17.—Wholesale Prices and Cost of Living



Sources: U. S. Department of Labor. Indexes of Wholesale Prices on a 1926 base were recomputed to the 1935-39 base.

The prime factors on the demand side were the record-breaking volume of government and industrial buying and the resultant heavy flow of purchasing power into consumer hands. The large national output during the year made it inevitable that income payments to individuals would be very large. It was, of course, not inevitable that consumers be permitted to retain most of their incomes, as conceivably, it would have been possible to relieve them of bigger income fractions through taxes and bond sales. Inasmuch as this course was not adopted, however, consumer purchasing power flowed freely into retail markets.

The prime factor on the supply side was, obviously, the growing relative scarcity of goods and services available to consumers. Although supplies of some goods were at or near peak levels, they were nonetheless unable to keep pace with purchasing power. Under these circumstances, the prices of many goods and services would undoubtedly have risen much higher than they actually did except for the restrictive influence of price controls and goods allocations. Had consumers been free to dip into their record-breaking savings and bid prices up and had sellers been free to hold goods for sale to the highest bidders, the cost of living might well have risen more nearly twice as much as it actually did during the year.

Table 22.—Indexes of Wholesale Prices, by Economic Classes and by Groups of Commodities

[1928=100]

Class or group	Annual average			November 1940	November 1941	November 1942	Percent increase	
	1940	1941	1942 ¹				Nov. 1940–Nov. 1941	Nov. 1941–Nov. 1942
All commodities.....	78.6	87.3	98.6	79.6	92.5	100.3	16.2	8.4
Economic classes:								
Raw materials.....	71.9	83.5	100.1	72.6	90.2	103.9	24.2	15.2
Semimanufactured articles.....	79.1	86.9	92.6	80.7	89.7	92.6	11.2	3.2
Manufactured products.....	81.6	89.1	98.5	82.6	93.8	99.4	13.6	6.0
Farm products.....	67.7	82.4	105.2	68.2	90.6	110.5	32.8	22.0
Grains.....	68.0	76.9	92.2	67.7	84.3	92.8	24.5	10.1
Livestock and poultry.....	69.2	91.6	117.2	69.9	90.6	121.3	29.6	33.9
Commodities other than farm products.....	80.8	88.3	96.9	81.9	92.7	97.9	13.2	5.6
Foods.....	71.3	82.7	99.1	72.5	89.3	103.5	23.2	15.9
Cereal products.....	78.3	80.7	89.3	74.8	85.9	89.5	14.8	4.2
Dairy products.....	77.6	87.3	98.8	82.3	96.3	111.2	17.0	15.5
Fruits and vegetables.....	63.1	67.5	95.0	60.4	77.9	102.0	29.0	30.9
Meats.....	73.3	90.4	111.7	76.2	90.8	112.0	19.2	23.3
All commodities other than farm products and foods.....	83.0	89.0	95.4	84.1	93.5	95.8	11.2	2.5
Building materials.....	94.8	103.2	110.2	98.9	107.5	110.1	8.7	2.4
Lumber.....	102.9	122.5	132.5	117.5	128.7	133.1	9.5	3.4
Chemicals and allied products.....	77.0	84.6	97.0	77.5	89.8	99.5	15.9	10.8
Chemicals.....	85.1	87.2	96.3	85.1	88.3	96.2	3.8	8.9
Oils and fats.....	44.3	77.6	105.4	42.3	92.9	101.5	119.6	9.3
Fuels and lighting material.....	71.7	76.2	78.5	71.9	78.8	79.1	9.6	.4
Petroleum products.....	50.0	57.0	59.7	49.3	60.4	60.7	22.5	.5
Hides and leather products.....	100.8	108.3	117.6	102.3	114.1	117.8	11.5	3.2
Hides and skins.....	91.9	108.4	118.0	101.2	114.0	116.0	12.6	1.8
Housefurnishing goods.....	88.5	94.3	102.6	88.6	100.6	102.5	13.5	1.9
Metals and metal products.....	95.8	99.4	103.8	97.6	103.3	103.8	5.8	.5
Iron and steel.....	95.1	96.4	97.2	95.3	97.1	97.2	1.9	.1
Metals, nonferrous.....	81.3	84.4	85.7	83.9	84.8	86.0	1.1	1.4
Textile products.....	73.8	84.8	96.8	74.5	91.1	97.1	22.3	6.6
Cotton goods.....	71.4	94.2	112.5	73.6	105.4	112.4	43.2	6.6
Rayon.....	29.5	29.5	30.3	29.5	30.3	30.0	2.7	-1.0
Woolen and worsted goods.....	85.7	96.6	109.7	88.8	102.6	111.7	15.5	8.9
Miscellaneous.....	77.3	82.0	89.6	77.5	87.3	90.1	12.6	3.2

¹ Average for January–November.

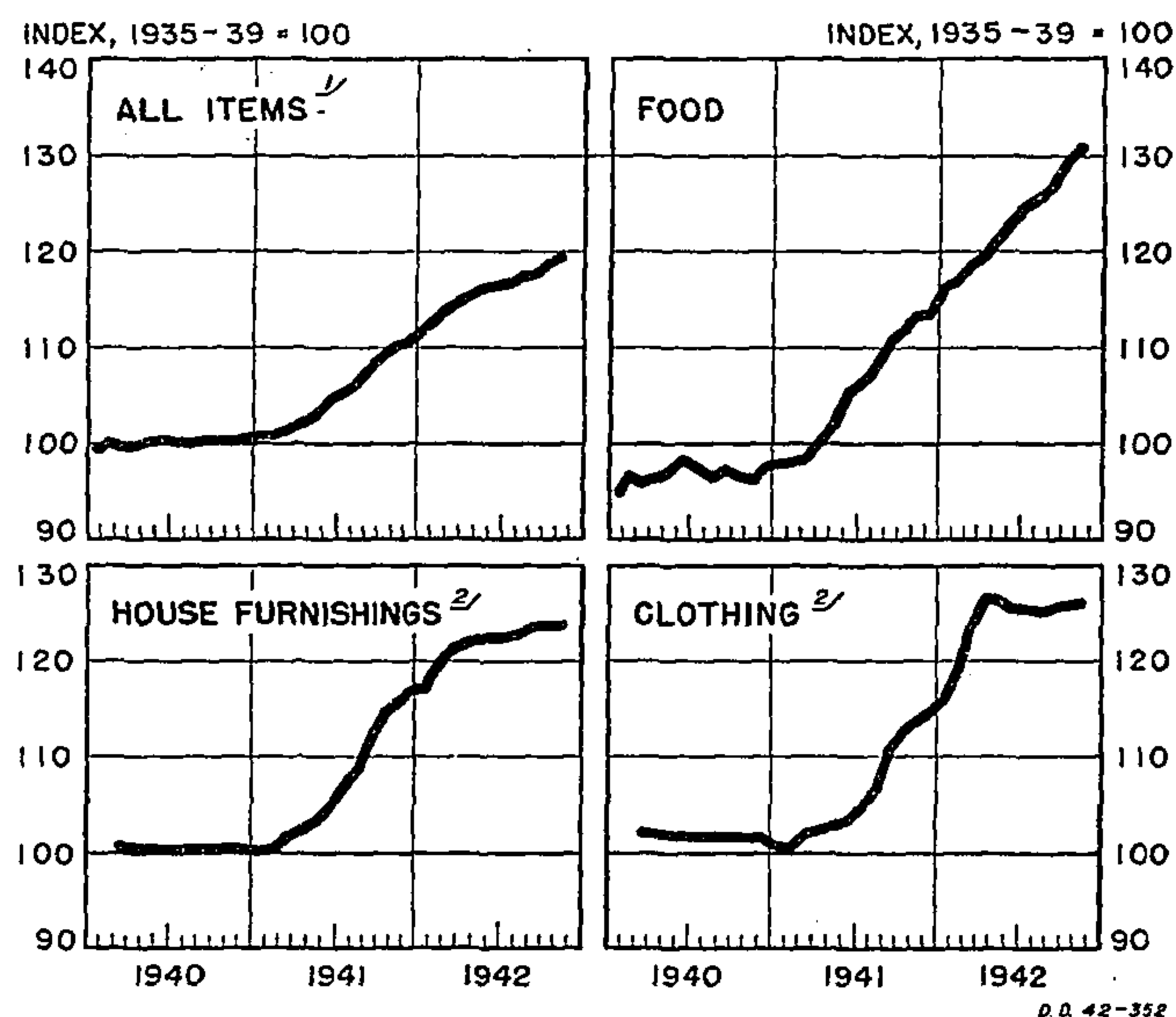
Source: U. S. Department of Labor.

The historic event of the year in the field of prices was, of course, the development of controls. The Nation for the first time undertook to control virtually the entire price level. The attempt was fairly successful. Without it, the price level would unquestionably now be considerably higher than it actually is. The first step was the approval of the Emergency Price Control Act of 1942 on January 30. Under the power conferred upon him by this law, Price Administrator Henderson on April 28 promulgated the General Maximum Price Regulation, effective for most prices in May, which imposed ceilings on the prices of most goods and many services. The ceilings were generally the highest comparable prices charged during March 1942.

The two biggest loopholes in these measures were the exemption of prices of farm products and foods from ceilings below certain high levels, and the omission of any control over wages and salaries.

The next steps were the enactment of the anti-inflation act of October 2, 1942, and the Executive order of October 3 establishing the Office of Economic Stabilization. This law and Executive order empowered the Government to bring the large majority of farm-product prices under ceilings and to control the rise of wages and salaries. Under these laws and Executive orders, the Economic Stabilization Director, the

Chart 18.—Cost of Living of Wage Earners and Lower-Salaried Workers in Large Cities

¹ Includes some items not shown separately in this chart.² Data are for the last month of each quarter through September 1940 and monthly thereafter.

Source: U. S. Department of Labor.

Price Administrator, the War Labor Board and, in the case of farm-product prices, the Secretary of Agriculture, now have probably all the powers of a nonlegislative sort necessary to prevent severe inflation. They can both set ceiling prices and control, or give relief from, the rising costs that might threaten to upset the ceilings. Thus the Government is in a position to fix selling prices, to control basic costs, and to forbid buyers from paying prices higher than the established ceilings.

It is clear that the Government, represented during most of the year chiefly by Price Administrator Henderson, was reasonably successful in keeping prices down—especially in view of the sharp advances that occurred in the prices of farm products and foods exempted from control.

Table 23.—Indexes of Cost of Living

[1935-39=100]

Item	1929	1940	1941	1942	Percent increase	
					1941 from 1940	1942 from 1941
Total.....	122.5	100.2	105.2	116.5	5.0	10.7
Clothing.....	115.3	101.7	106.5	124.3	4.7	16.7
Food.....	132.5	96.6	105.5	123.8	9.2	17.3
Fuel, electricity, and ice.....	112.5	99.7	102.5	105.4	2.8	2.8
Housefurnishings.....	111.7	100.5	108.2	122.1	7.7	12.8
Rent.....	141.4	104.6	105.9	108.5	1.2	2.5
Miscellaneous.....	104.6	101.1	104.0	111.0	2.9	6.7

Source: U. S. Department of Labor, except 1942, which was estimated, on the basis of 11 months' data, by the U. S. Department of Commerce.

But difficult price problems still remain despite the progress toward economic stabilization made in the past year. The basic problem is to win, as nearly as possible, complete public cooperation and acceptance of controls. If price controls are to be fully effective, some-

body—nearly everybody in fact—is going to be affected. The typical reaction is that their impact should always fall on the other fellow. Nearly everyone wants the prices of the things he buys frozen while hoping the prices that determine his income remain free to rise. Stabilization can be had only when all accept the principle that in order to have their cost of living frozen, they must accept income stabilization as well.

Reversal of this principle and acceptance of rising living costs in order to maintain incomes free to rise results, of course, in the familiar spiral of inflation which is just the reverse of stabilization. Without public recognition and acceptance of this basic principle, stabilization can be had only at the cost of an intensive, continuing, Nation-wide enforcement aimed at policing all price transactions. Hence, in the months ahead, the chief effort must be made in the direction of achieving either public acceptance or enforcement.

Another basic problem of price control arises from the fact that, while granting the power of the Government to fix and enforce prices, they must be set just right to avoid undesirable repercussions and to encourage desirable types of production and consumption. Whenever ceiling prices are set at low levels—as they frequently must be in order to check inflation—the stabilization authorities will have to choose among the following alternatives: (a) Maintaining the ceilings and cutting the supply of the goods in question by forcing some producers out of business; (b) raising the ceilings and therefore the price level in order to encourage supply; (c) maintaining the ceilings but granting subsidies or some other relief to producers; (d) maintaining the nominal price ceilings but permitting hidden price advances by such means as quality deterioration, upgrading or trading up; (e) maintaining the ceilings but forcing cost reductions which curtail the income of some group; or (f) any combination of these. Since any one of the alternatives will evoke protests from some interested group, and will influence the production and consumption of goods and services, difficult decisions lie ahead.

There will be other price-control problems, of course, such as the pressure brought by strong blocs to obtain price treatment specially favoring themselves. But whereas the big achievement relating to price control in 1942 was getting the necessary legislation and setting up the mechanism, the big job in 1943 will be to make it work and win public acceptance, even though nearly everyone will be more severely pinched than before.

Finance

The key financial development of the year was the putting into effect of price-level controls. But for that, virtually all financial magnitudes would have been quite different—and higher. Even so, the financial history of the year is packed full of records that are especially noteworthy. For example, a private corporation

arranged a 1-billion dollar bank credit. Congress passed a 7-billion dollar tax bill, the largest in the Nation's history—yet still not large enough. Federal Government total expenditures amounted to nearly 60 billion dollars. Other fiscal and banking developments were in keeping with these.

Table 24.—Budget Expenditures, Calendar Years 1939-42¹

[Millions of dollars]				
Major type	1939	1940	1941	1942
War activities.....	1,358	2,778	12,705	49,860
Agricultural adjustment program.....	967	1,014	728	740
Unemployment relief.....	2,181	1,813	1,513	817
Transfers to trust accounts.....	202	249	385	479
Interest on the public debt.....	971	1,076	1,145	1,452
Debt retirements.....	53	144	100	28
All other.....	3,210	2,734	2,577	2,671
Total.....	8,941	9,803	19,153	56,048
Total, excluding debt retirement.....	8,888	9,659	19,053	56,020

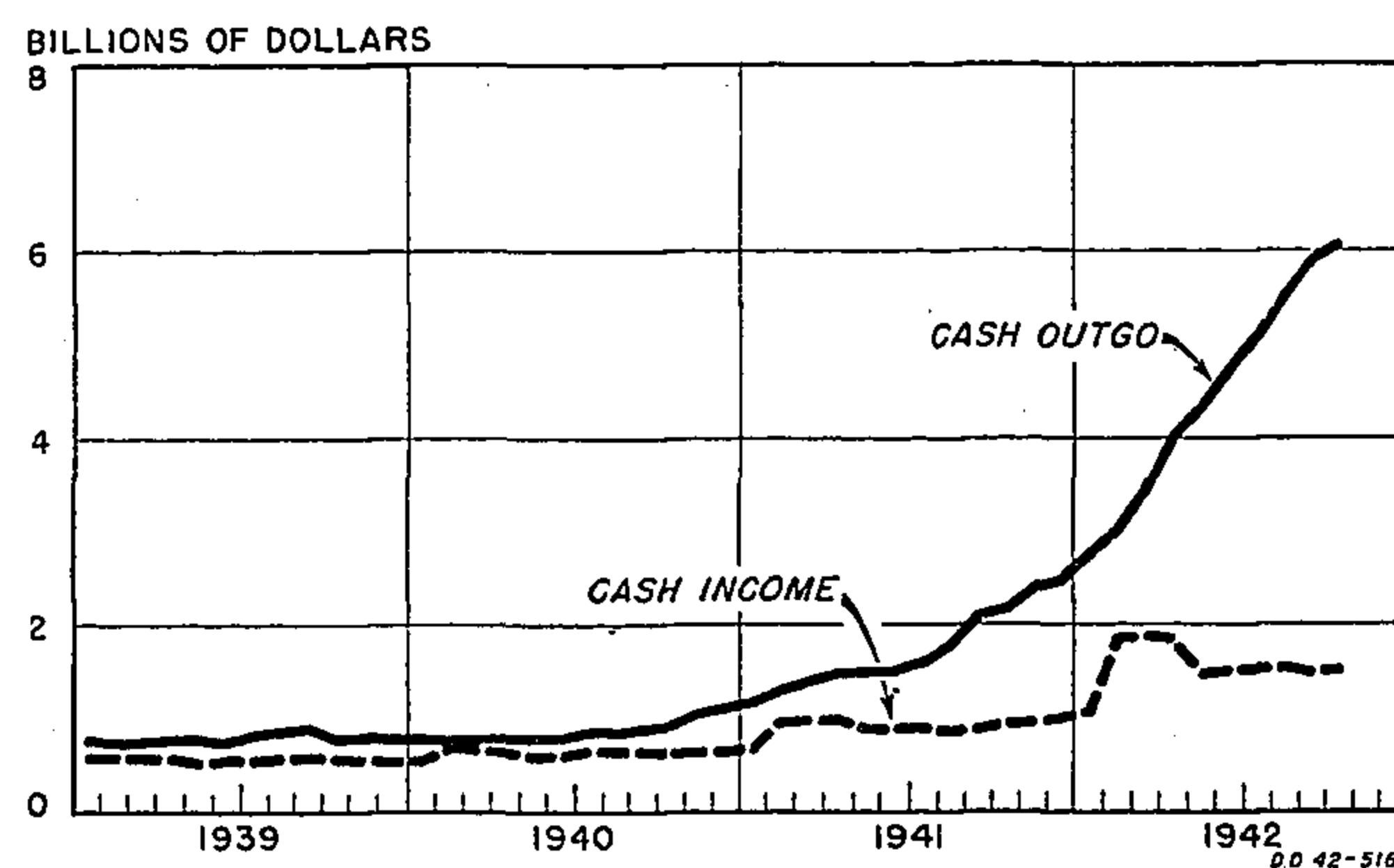
¹ General and special accounts, basis of the Daily Treasury Statement. Classifications are those currently published in the Survey of Current Business. For detailed explanation, see footnotes for page 75 of the 1942 Supplement.

Source: Daily Statement of the U. S. Treasury.

To pick any one of the interrelated and highly dynamic magnitudes concerned as being "given" or predetermined would not be entirely accurate, but the 54 billion dollars of war expenditures come closest to warranting that designation. This is because the Government, on the outbreak of war, mapped out a program to purchase during the year the largest physical volume of war goods and services that could possibly be wrung from the economy. The resulting war outlay became the dominant monetary flow of the year.

Total Federal budget expenditures for 1942 aggregated 56 billion dollars. Government corporations spent in addition nearly 4 billions more, to bring the aggregate Federal outlay to 60 billion dollars. Non-war outlays declined.

Chart 19.—Cash Income and Outgo of the United States Treasury¹



¹ Data are a 3-months moving average centered at second month.

Source: U. S. Treasury Department.

Treasury receipts were practically double those of 1941. The increase was due in part to the higher rates enacted in the two Revenue Acts of 1940 and the

Revenue Acts of 1941 and 1942. The sharp rise in the 1942 national income, however, was also a major contributing factor as it expanded the tax base very considerably.

Table 25.—Budget Receipts, Calendar Years 1939-42¹

[Millions of dollars]

Item	1939	1940	1941	1942
Income taxes ²	1,851	2,366	4,253	11,068
Employment taxes.....	783	873	1,036	1,329
Miscellaneous internal revenue.....	2,308	2,585	3,352	4,350
Customs.....	333	330	438	323
Other receipts.....	210	263	534	317
Total receipts.....	5,485	6,416	9,612	17,387
Less: Net appropriation to Federal old age and survivors insurance trust fund.....	566	582	763	985
Net receipts.....	4,919	5,834	8,849	16,403

¹ General and special accounts, basis of the Daily Treasury Statement.

² Includes individual income taxes, corporate income and excess profits taxes, miscellaneous profits taxes, unjust-enrichment tax, declared value-excess profits taxes, and taxes under the limiting provisions of the Vinson Act.

Source: Daily Statement of the U. S. Treasury.

The classification of receipts in table 24 shows the growing importance of income taxes as a source of Federal revenue. Each of the last three regular revenue acts has reduced exemptions under the individual income tax and increased the rate of tax. The second Revenue Act of 1940 introduced the excess profits tax on corporate income. As a result of this trend, it is expected that three-fourths of the Treasury's net budget receipts in the fiscal year 1943 will consist of revenue from income taxes. The long-debated Revenue Act of 1942 (October) continued this trend by increasing corporate income taxes (mainly the excess profits tax) by 1.3 billion dollars (net), and individual income taxes by 5 billion (net). All other taxes were increased only some 0.6 billion.

Table 26.—Public Debt of the United States Government and Guaranteed Obligations Outstanding, as of December 31, 1941 and 1942

[Millions of dollars]

Item	Dec. 31, 1941	Dec. 31, 1942	Increase
Public debt:			
Public issues:			
Bonds:			
United States savings bonds ¹	6,140	15,050	8,910
All other bonds.....	33,860	49,818	15,958
Notes:			
Regular series.....	4,831	8,697	3,866
National defense series.....	1,166	1,166	0
Tax series.....	2,471	6,384	3,913
Certificates of indebtedness.....		10,534	10,534
Bills.....	2,002	6,627	4,625
Special issues.....	6,981	9,032	2,051
Non-interest-bearing debt.....	487	862	375
Total public debt².....	57,938	108,170	50,232
Guaranteed obligations not owned by the Treasury.....	6,324	4,301	-2,023
Total public debt and guaranteed obligations.....	64,262	112,471	48,209

¹ At current redemption values except series G which is stated at par.

² Includes \$1,278,000,000 as of Dec. 31, 1941, and \$5,201,000,000 as of Dec. 31, 1942, advanced to Government agencies for which their obligations are owned by the Treasury.

Source: Daily Statement of the U. S. Treasury.

An interesting feature of the 1942 Revenue Act is the introduction of the principle of compulsory saving both for corporations and for individuals. Ten per-

cent of the excess profits tax paid is refundable to corporations after the war, as is a portion of the Victory Tax on individual income. In either case the refund can be taken at the end of the year if sufficient savings in certain prescribed forms have been made.

Notwithstanding the doubling of Treasury receipts, outlays outran them to a degree sufficient to result in a deficit of 43 billion dollars, of which nearly 4 billion was for the account of Government corporations. This unparalleled deficit, along with the increase in the Treasury's general-fund balance of approximately 5 billion, forced the gross public debt up by 50 billion dollars to a total of 108 billion, an increase of 87 percent during the year. This deficit and debt increase were, of course, due to the lag of revenue legislation and collections behind the swift pace of expenditures dictated by the war effort. The technical factors governing the movements of the Federal debt during the year are summarized in table 27.

Table 27.—Factors of Increase in the Public Debt, Calendar Years 1941 and 1942

[Millions of dollars]

Item	1941	1942
Budget expenditures, excluding debt retirement.....	19,053	56,020
Net receipts.....	8,848	16,403
Excess of budget expenditures.....	10,204	39,618
Trust accounts, etc., excess of expenditures ¹	1,077	3,631
Increase in general-fund balance.....	1,632	6,983
Increase in the public debt.....	12,913	50,232
Public debt, beginning of year.....	45,025	57,938
Public debt, end of year.....	57,938	108,170

¹ Reflects effects of financing Government corporations through the Treasury Department.

Source: Daily Statement of the U. S. Treasury.

Another key financial datum of 1942 was the 20 billion dollars in round figures of Government securities purchased by the commercial banks. The absorption of this block of bonds represented the outstanding impact of the Treasury's fiscal operations on the commercial banking system. Principally as a result, the deposits of these banks rose about 15 billion dollars—the largest yearly increase in American banking annals.

Date	All banks, except mutual savings banks				Currency in circulation (billions of dollars)	
	Government security holdings (billions of dollars)		Deposits, excluding interbank (billions of dollars)			
	Amount	Change during year	Amount	Change during year	Amount	Change during year
Dec. 31, 1940.....	18		54		9	
Dec. 31, 1941.....	22	4	60	6	11	2
Dec. 31, 1942.....	42	20	75	15	15	4

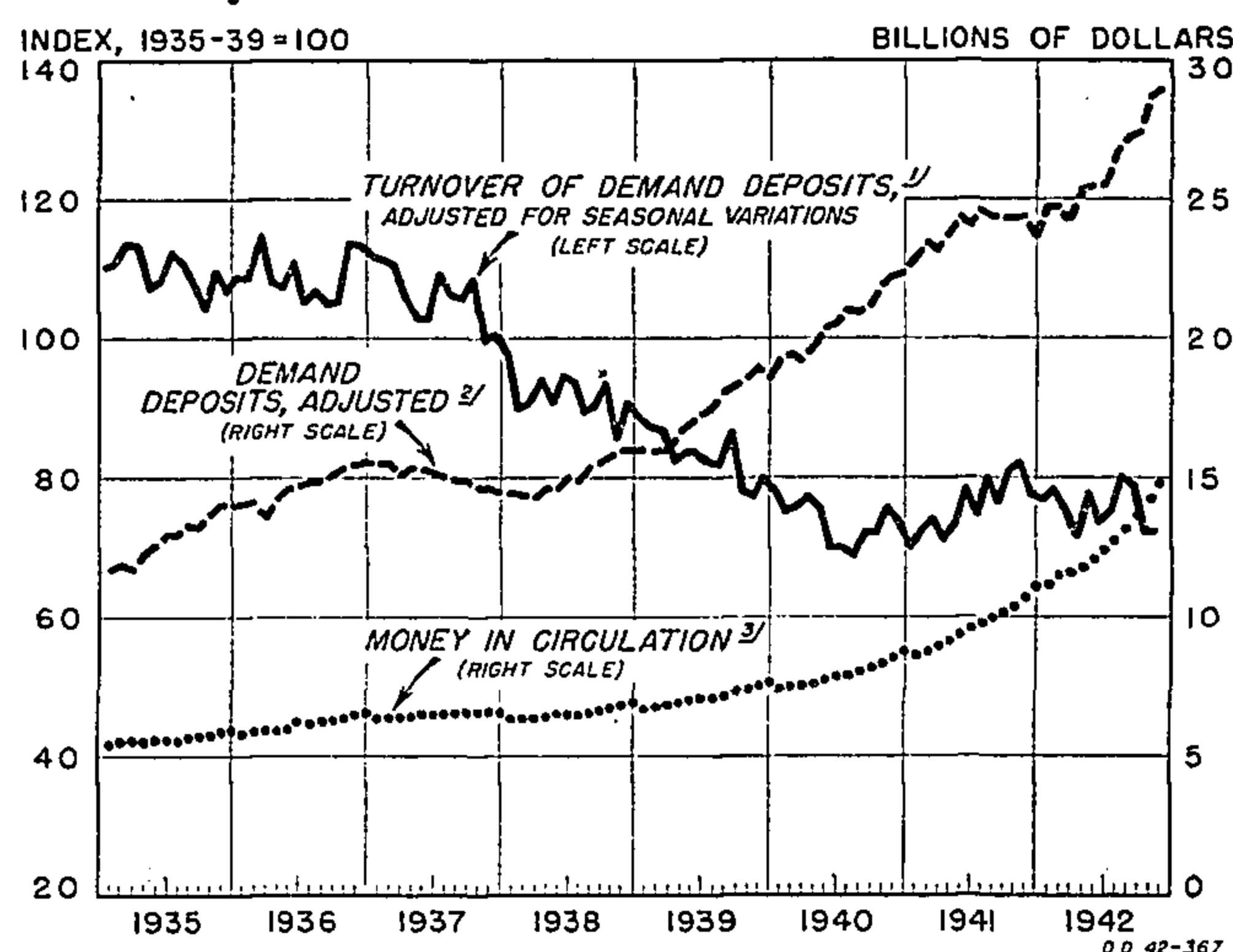
▷ Preliminary estimate.

Source: Board of Governors of the Federal Reserve System.

A figure closely allied to the deposit increase was the record-breaking jump in currency in circulation. Not always is there such a close correspondence between

Government borrowing from banks and the increase in total deposits and money in circulation. In the year just ended, however, there can be no doubt of the close connection between the two. Neither can there be much doubt that this record-breaking inflation of the circulating medium would not have occurred had the \$20-billion block of bonds been purchased by individuals out of their savings. So much currency and bank credit in circulation clearly represents dangerous inflationary ammunition. With more and perhaps even larger in-

Chart 20.—Demand Deposits and Turnover of Demand Deposits in Reporting Member Banks in 101 Leading Cities, and Money in Circulation



¹ Index is based upon relationship between debits to individual accounts (monthly total raised to an annual rate) and monthly average of Wednesday demand deposits.

² Data are deposits other than interbank deposits and United States Government deposits, less cash items reported as on hand or in process of collection; figures are for Wednesday nearest end of month.

³ Data are as of end of month.

Sources: Demand deposits, Board of Governors of the Federal Reserve System; turnover of demand deposits, Federal Reserve Bank of New York; money in circulation, U. S. Treasury Department.

creases of the same kind in prospect, it is to be hoped that price controls will function effectively enough to limit inflationary tendencies.

Another significant banking development was the continued decline in excess bank reserves. This took the commercial banks closer to the point where, when their excess reserves are exhausted, they will have to rely much more heavily on the Federal Reserve banks to support their outstanding deposits. The factor chiefly responsible for the decline in excess reserves was, as can be seen in table 28, the deposit increase that forced up required reserves.

The Federal Reserve banks themselves made central-bank history by expanding their outstanding credit in the later months of the year to a new peak—higher even than that reached in 1920 at the crest of World War I inflation. The expansion was accomplished by Federal Reserve purchases of Government securities amounting to about \$3.7 billion which were, in effect, paid for with Federal Reserve notes to satisfy the urgent public demand for currency. This does not

Table 28.—Factors Affecting Total and Excess Reserves of Member Banks, 1942

[Millions of dollars]

Item	Dec. 31, 1941	Dec. 31, 1942	Net change
Factors of increase:			
Monetary gold stock.....	22,737	22,726	-11
Treasury currency outstanding.....	3,247	3,649	+402
Federal Reserve bank credit outstanding.....	2,361	6,679	+4,318
Nonmember deposits and other Federal Reserve accounts.....	1,651	1,534	-117
Total.....			+4,592
Factors of decrease:			
Treasury cash.....	2,215	2,192	-23
Treasury deposits with Federal Reserve banks.....	867	799	-68
Money in circulation.....	11,160	15,412	+4,252
Total.....			+4,161
Reserve balances.....	12,450	13,117	+667
Required reserves.....	9,365	11,129	+1,764
Excess reserves.....	3,085	1,988	-1,097

Source: Board of Governors of the Federal Reserve System.

account for the entire expansion of currency in circulation, however, and it is clear that the sharp increase in income payments to individuals would in any case have necessitated some currency expansion.

These operations naturally influenced the reserve position of the Reserve banks. By year-end, the reserve ratio of the combined Federal Reserve banks had declined about 15 points over that of the previous year to around 76 percent. Their reserve holdings are tremendous, of course, and their position very strong indeed.

Table 29.—Stock Prices and Sales and Corporate Earnings

Item	1937	1938	1939	1940	1941	1942
Total (402 stocks), 1935-39=100.....	117	88	94	88	80	69
Industrials (354 stocks).....	118	90	95	88	80	71
Public utilities (28 stocks).....	110	86	99	96	81	61
Railroads (20 stocks).....	130	70	75	71	71	66
Shares sold on all registered exchanges (monthly averages in millions).....	70	45	39	31	26	¹ 17
Corporate net income before taxes (billion dollars).....	5.2	2.6	5.4	8.0	13.8	² 18.8
Federal income and excess profit taxes.....	1.3	0.9	1.2	2.5	6.6	² 12.0
Corporate net income after tax.....	3.9	1.7	4.2	5.5	7.2	² 6.8

¹ 11-months' average.

² Estimated by Department of Commerce.

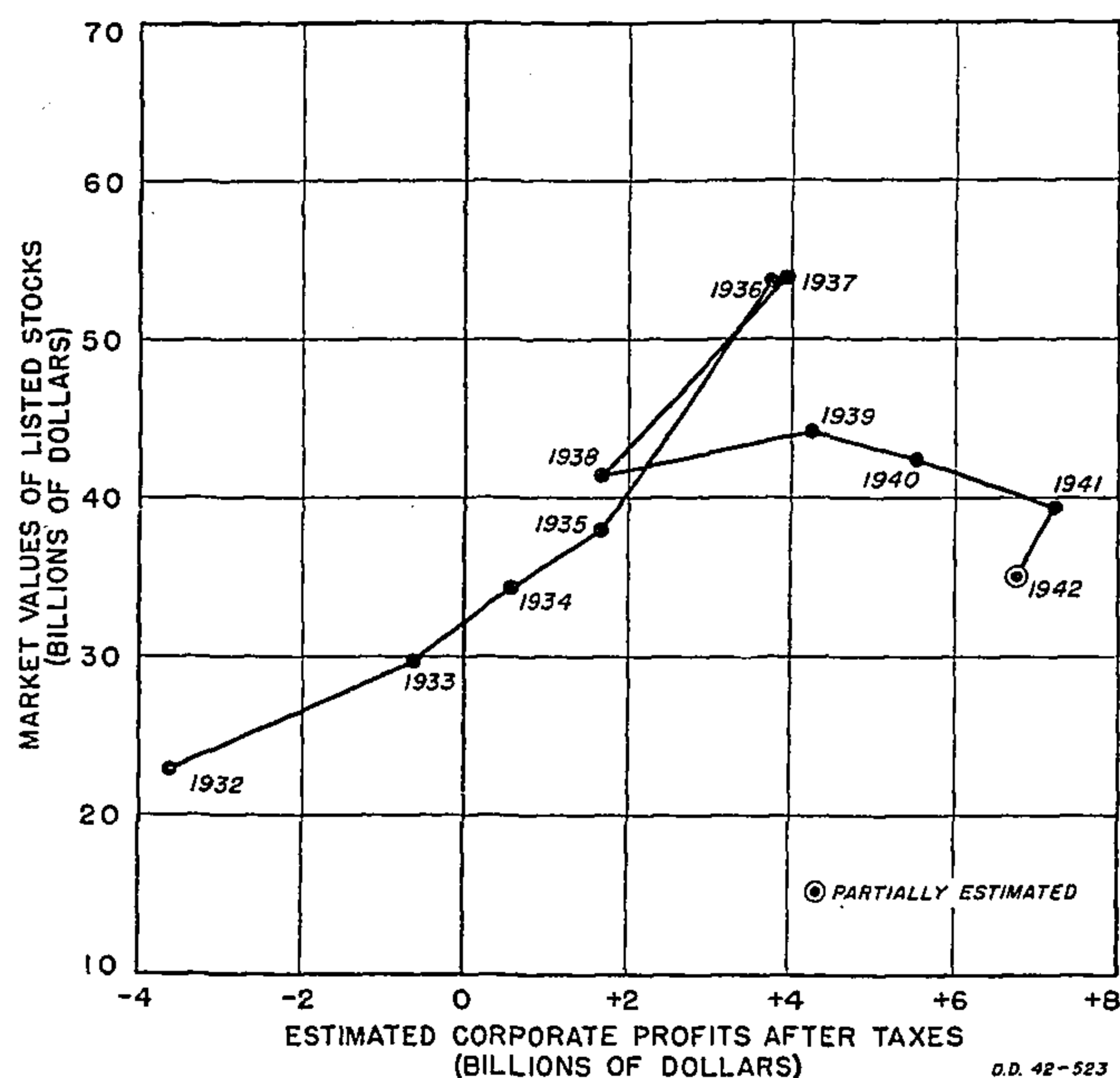
Sources: Standard and Poor's Corporation, Securities and Exchange Commission, and the U. S. Department of Commerce.

The policy of expanding the currency and credit circulation, in place of heavier taxation and larger bond sales to others than commercial banks, resulted in leaving individuals and business firms in a strong cash position. Mention has already been made of the unprecedented amounts saved by individuals during 1942. Some of the savings were in the form of debt reduction but much of it in the form of cash and bank credit. There is some evidence that business firms also saved large sums, including much cash. Many firms had set aside larger reserves against accrued taxes than they needed after their tax liabilities were clarified by the enactment of the 1942 Revenue Act.

Corporate Earnings at High Levels.

Despite war taxes, business enterprise during 1942 was on the whole exceedingly prosperous. Corporations, as shown in table 29, made larger profits before taxes than ever before. After taxes, they realized only 6 percent less profit than in 1941. Corporate earnings after taxes in 1941 were slightly higher than those of 1929 and were the largest on record.

Chart 21.—Market Values of Stocks Listed on the New York Stock Exchange Related to Estimated Total Corporate Profits After Taxes



Sources: New York Stock Exchange and U. S. Department of Commerce.

Despite near-record earnings after taxes, however, investors were fearful of the dangers hovering over a world aflame. Consequently they capitalized these earnings at very high rates to allow for the risks. Thus with total corporate earnings 74 percent higher than in 1937, for instance, stock prices, as measured by the Standard-Poor index, averaged 41 percent lower. Ever since Hitler invaded Poland in 1939, this discrepancy between corporate earnings and stock prices (see chart 21) has grown increasingly pronounced from year to year. The upward trend of the stock market since May, however, indicated renewed confidence, and prices closed the year higher than in December 1941.

1943 Prospects

Notwithstanding all the uncertainties that encompass a wartime economy, a real national product in 1943 larger than the record high volume of 1942 is a strong probability. It is, in fact, underwritten as much as a future event can be, by the magnitude of the 1943 armament program. The chief problem of management facing the Government as it maps out the policies to govern our 1943 war economy, is to make the most of our resources of manpower, materials, and capital equip-

ment which will become increasingly scarce relative to the ruling needs of the year.

The crucial problem will be manpower. This will be the case for the reasons already indicated—namely, that the civilian labor force of the Nation almost reached its peak in 1942 and will expand little if any more in 1943.¹⁰ The additional output envisaged in 1943 programs must therefore come largely from longer working periods and larger productivity per person as these will constitute the Nation's major labor reserves.

The manpower problem is complicated by the fact that it is essentially not a national problem subject to a single comprehensive solution, but is instead a large number of local problems. Whatever national policy is adopted, it will have to be executed in hundreds of localities and largely by the local authorities on the spot. Perhaps the most difficult aspect of it, therefore, will be to persuade the local authorities in each case to adhere to the general policies determined by the War Manpower Commission. As the armed forces continue to absorb more millions of men, the need for workers in war and essential civilian industries will soon become intense. It seems unavoidable that workers will have to move from surplus areas to scarcity areas, from nonessential to essential industries and occupations, and non-workers will have to join the work force. To bring about these various types of labor flow without any or with as little compulsion as possible, and to do it all promptly, equitably and with a minimum of individual hardships in all the various localities concerned—that is the crux of the problem.

The economy will have at its disposal in 1943 more materials and more capital plant and equipment to process them than in 1942. Materials stockpiles and inventories that can be drawn upon are in the case of most materials also larger. Moreover, available materials supplies will very likely be used more effectively in the national interest, with less leakage into idle inventories and with a more smoothly scheduled flow through the productive process. Such, at least, is the aim of the Controlled Materials Plan which will become effective early in the year. There is reason to believe that much of this promise will be fulfilled and that a given quantity of raw materials will result in a larger output of finished products than in 1942. It is to be hoped that the feature of the plan which places responsibility for the distribution of materials among subcontractors in the hands of the prime contractors will result in an increase, rather than shrinkage, in the number of subcontractors and in a broader spreading of war work among qualified business firms.

With regard to plant and equipment, the large number of new plants built and equipped in 1942 will

¹⁰ This does not mean, of course, that more newly recruited workers will not enter industry. It means rather that new accessions to the labor force will little more than offset withdrawals of men into the armed forces.

(Continued on page 32)